



Department of
**Labor & Workforce
Development**

Continued Growth for Tennessee's Economy

2017 Reference Guide

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Continued Growth for Tennessee's Economy

Executive Summary

The Tennessee economy continued its growth in 2017, with nonagricultural employment increasing from 2,965,500 to 3,010,000. The average number of employing establishments grew, the state labor force expanded, and state unemployment rates continued their decline. Per capita income advanced at a greater rate than the U.S. in 2015-2016 as average wages rose and poverty rates declined somewhat. The short-term job outlook is for annual average employment growth of at least 1.8 percent through the third quarter of 2019, with expected total openings of 840,820 over the two year period. From 2015 to 2016, non-fatal injuries and illnesses on the job were also reduced.

Employment

Nonagricultural employment increased by nearly 1.5 percent from 2016 to 2017, at a pace somewhat slower than from 2015 to 2016. The result was 44,500 new jobs created in the state from 2016 to 2017. All metropolitan statistical areas increased in employment except Cleveland.

Employers

The average number of establishments increased by 2.4 percent over the year. Total payroll increased to \$139 billion in 2017, one and a half times higher than in 2016. Seventy counties had a net increase in employing establishments in 2017 (Page 3).

Labor Force and Demographics

Total population increased 1 percent over the year. Even as the labor force increased to 3,198,800 in 2017, the number of unemployed decreased by 29,100 to an annual average of 118,600 (Table 21). The average unemployment rate dropped from 4.7 percent in 2016 to 3.7 percent in 2017.

Wages and Income (and Poverty)

The Tennessee average annual wage increased nearly 1.7 percent in 2016-2017. The median wage, with half of employees earning more and half less, improved over the year by 3.3 percent, bringing the state median wage to \$33,870. Production wages increased from \$18.58/hour in 2016 to \$19.40/hour in 2017. Per capita personal income was \$43,326 (Table 17), while the rate of poverty was 17.2 percent (Table 12).

Job Outlook

One measure of the job outlook is the number of unemployed individuals compared to the number of jobs posted monthly on the job seeker website jobs4tn.gov. From June 2016 to June 2017, the number of unemployed remained less than the number of job postings, as the state remained a jobseekers' market. Job growth through 2019 was expected to be at least 1.8 percent annually (Table 5).

Safety on the Job

Safety on the job increased from 2015 to 2016 with a reduction in nonfatal injuries and illnesses to 3.0 per 100 full time equivalent worker.

Detailed Industry Analysis

Twenty industries comprise more than two of every three jobs in Tennessee (Table 4). The top five food services include food services and drinking places, educational services, administrative and support services, ambulatory health services (outpatient), and hospitals. More people are now employed in outpatient healthcare settings (148,424) than in hospitals (142,369). These industries are also the top five in terms of employment in the East Region (Table 18) and West Region (Table 26); however, in the Middle Region professional, scientific, and technical services rank fourth in employment (Table 22). Transportation equipment manufacturing is the only manufacturing industry among the top 10 industries in the East and Middle regions, with none in the top 10 in employment in the West; however, paper, petroleum and coal, and miscellaneous manufacturing are among the ten 10 industries in the West paying the highest annual average wages (Table 28).

Detailed Occupational Analysis

The industries expected to grow most rapidly through 2019 are identified in the Job Outlooks section (Table 6). Although the service-providing sector is expected to grow almost three times as fast as the goods producing sector, manufacturing and construction are still expected to experience positive growth, with construction expected to create more than 4,000 jobs during the 2017-2019 projection period. More rapid growth in the professional and business services, financial activities, and leisure and hospitality industries will boost employment in the computer and mathematical and business and financial occupations (Table 7), as well as for office and administrative occupations such as customer service representatives. Healthcare support is expected to be the third fastest-growing group. The top three critical skills in terms of growth are speaking, active listening, and reading comprehension (Table 8). . Table 9 contains information on Middle Skill occupations (those requiring less than a four year degree) that are in demand, their 2017 annual average wages, and their current supply/demand outlook on jobs4tn.gov. If listed occupations have certifications aligned with Tennessee high school career and technical education programs, an indicator is displayed in the last column in the table.

Workforce Issues in the East, Middle, and West Regions

Population in 2017 for the state was estimated at 6,715,984, increasing by one percent over 2016 (Table 12). All three regions increased in population, with the Middle Region adding an additional 46,333 people. Average unemployment rates declined in all areas. The West continues to have the highest unemployment rates, including among youth. College educational attainment in the East was slightly below the state average. The state poverty rate (2016) has declined somewhat to 17.2 percent, with the West Region higher at 20.6 percent. The East Region has the highest rate of those unemployed with a disability (15.4 percent).

Sustainable Barriers to Employment

Tables 30 and 31 contain numbers of individuals in each of the nine local workforce development areas with substantial barriers to employment in the nine LWDA's. Collection of these data is ongoing, and will be provided to workforce services partners as it becomes available. In the fiscal year ending June 2018, almost 2,000 individuals were involved in recovery courts in Tennessee.

Apprenticeship Completers

Key to reducing unemployment among individuals with multiple barriers to entering and being retained in the workforce is integrating work-based learning (especially if compensated) and employment. One of these strategies is increasing apprenticeships. In 2017, the number of registered apprenticeship completers in Tennessee increased by 108 to 764, in a total of 46 unique occupations. The East Region had the largest number of apprenticeship sponsors and completers (Tables 33-36).

Conclusion

Tennessee continues on the path of positive employment growth and increasing population with historically low unemployment rates and some increases in educational attainment and wages. Information on the significant numbers of individuals who face substantial barriers to employment as identified by the Workforce Innovation and Opportunity Act will provide the newly created Local Workforce Development Areas information for strategic planning on those they have the potential to serve.

Tennessee's Economy | 2017

 <p>Employment</p>	<p>Total Employment 2017: 3,010,000 1.5% 2016: 2,965,500 Stronger</p>	<p>New Jobs 2017: 44,500 2016: 71,900 Strong</p>	<p>MSA Employment 2016-2017 Nashville - 3.17% Jackson - 0.15% Chattanooga - 2.15% Knoxville - 0.87% Stronger</p>
 <p>Employers</p>	<p>Average Number of Establishments 2017: 156,909 2.4% 2016: 153,167 Stronger</p>	<p>Total Payroll 2017: 139.0 Billion 1.53% 2016: 136.9 Billion Stronger</p>	<p>Counties That Increased Employment 2017: 70 2016: 73 Strong</p>
 <p>Wages & Income</p>	<p>Average Annual Wage 2017: \$48,222 1.7% 2016: \$47,401 Stronger</p>	<p>State Median Wage 2017: \$33,870 3.3% 2016: \$32,800 Stronger</p>	<p>Average Hourly Wages - Production Workers 2017: \$19.40 2016: \$18.58 Stronger</p>
 <p>Labor Force & Demographics</p>	<p>Unemployment Rate 2017: 3.7% -1.0% 2016: 4.7% Stronger</p>	<p>Labor Force 2017: 3,198,800 2.0% 2016: 3,134,700 Stronger</p>	<p>Unemployment Rates Veterans, 2017: 3.5% Youth 2016: 16.5% With Disability, 2016: 12.0% % In Poverty, 2016: 10.8% Stronger</p>
 <p>Job Outlooks</p>	<p>Ratio of Unemployed to Job Openings June 2017: 0.90 0.0% June 2016: 0.90 Stronger</p>	<p>Projected Annual Growth Rate, All Occupations 2017-2019: 1.8% 2016-2018: 1.8% Strong</p>	<p>Projected Job Openings 840,820 Stronger</p>
 <p>Safety on the Job</p>	<p>Total Nonfatal Occupational Illnesses and Injuries, All 2016: 3.0 per 100 FTE 2015: 3.2 per 100 FTE Stronger</p>	<p>Total Nonfatal Occupational Illnesses and Injuries, Public Sector 2016: 3.9 per 100 FTE 2015: 4.3 per 100 FTE Stronger</p>	<p>Fatal Occupational Injuries 2016: 122 2015: 112 Challenge</p>

Tennessee Economic Conditions 2017

During 2017, job growth at the national level continued to remain healthy, increasing an average of 146,600 new jobs from January to December 2017. The national unemployment rate continued to decline, from a seasonally adjusted 4.8 percent in January of 2017 to 4.1 percent in December 2017. In 2017, Tennessee's seasonally adjusted unemployment rate declined from 4.5 percent in January to 3.3 percent in December, as it continues to remain lower than the national rate.

Personal consumption expenditures (spending) increased by \$552 billion from second quarter 2016 to second quarter 2017. For the year 2017 consumer confidence has remained on a solid footing reaching 117 in the second quarter of 2017. In Tennessee, average weekly wages of production employees in manufacturing increased by 4.4 percent over the year.

At the national level, despite the steady improvement in job creation, the labor force participation rate decreased slightly from a high of 63.0 percent in both March and September 2017 before moving back down to 62.7 percent in December 2017. Tennessee's rate continued to move closer to the national rate, from December's 2016 rate of 60.5 percent to 60.7 percent in December 2017. From 2016 to 2017, Tennessee's estimated population increased by 66,580, an increase of slightly more than 1 percent.

Tennessee's exports grew by almost 6 percent for the fourth quarter of 2017, a gain of \$470 million from 2016. It proved to be a good year for state exporters. At \$33.3 billion, 2017 annual exports gained 6 percent over 2016. Despite this positive growth, the state lagged the national export performance during the fourth quarter, with overall U.S. exports up 7.8 percent.

During 2017 export gains were widely distributed across different industries. The more outstanding performances included cell phone exports, where shipments increased from \$194 million in the last quarter of 2016 to \$312 million in the fourth quarter 2017, with most going to East Asia and South America. Sales of earth-moving equipment more than tripled with the majority of sales going to Canada. Whiskey exports jumped in the fourth quarter with sales rising by nearly a third, to almost \$200 million, when compared to a year earlier. Most of this increase was in the European area.

A word of caution may be introduced at this point. The discussion of trade wars and tariffs at the national level is expected to have significant effects on exports within our state. Many of the tariffs being considered and the markets under consideration involve significant trading partners and users of Tennessee exports.

Sales tax revenues were up 6.72 percent and franchise and excise taxes were up 14.57 percent in June 2017 compared to June 2016, helping to fund several of the governor's initiatives in various areas towards increasing the capabilities of our state's workforce.



Statewide Employment

Tennessee’s average annual nonfarm employment increased 1.5 percent from 2016 to 2017, adding 44,500 jobs. Goods producing jobs grew at a rate of 2.1 percent compared to 1.6 percent for private service-providing jobs. Jobs in the government sector grew at 0.5 percent. In the goods producing sector, manufacturing and mining, logging, and construction each grew by 4,900 jobs.

Among the private service-providing industries, those with the largest job increases were leisure and hospitality which added 10,200 jobs, and education and health services which added 8,000 jobs. Within the leisure and hospitality sector, accommodation and food services accounted for 8,300 of the added jobs while healthcare and social assistance accounted for 7,100 of the 8,000 jobs added in education and health services.

Since 2012, Tennessee has added 295,000 jobs, a 10.9 percent increase. Professional and business services led the way adding 67,500 jobs. Of those jobs, 31,700 were added in administrative support, waste management and remediation services, and 25,200 were added in professional, scientific and technical services. Other sectors gaining over 25,000 jobs included durable goods manufacturing; trade, transportation and utilities; healthcare and social assistance; and accommodation and food services. Only federal government has experienced a decline since 2012.

2017 Private Sector Employment

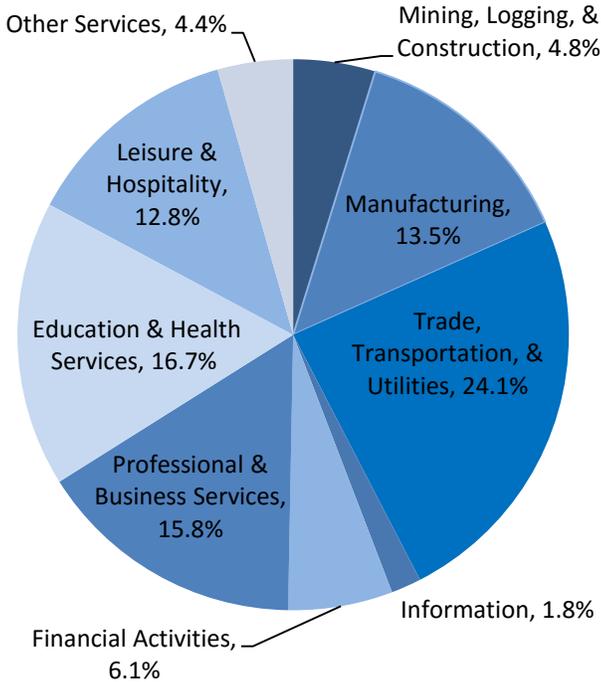


Figure 1

Table 1: Tennessee Industry Employment, 2012-2017

Industry Employment (in thousands)	2012	2016	2017	16-17	16-17 %	12-17	12-17 %
Total Nonfarm	2715.0	2965.5	3010.0	44.5	1.5%	295	10.9%
Goods Producing	422.2	463.0	472.9	9.9	2.1%	50.7	12.0%
Mining, Logging, & Construction	108.9	119.1	124.0	4.9	4.1%	15.1	13.9%
Manufacturing	313.4	343.9	348.8	4.9	1.4%	35.4	11.3%
Durable Goods Manuf.	193.9	219.2	222.0	2.8	1.3%	28.1	14.5%
Non Durable Goods Manufacturing	119.5	124.7	126.8	2.1	1.7%	7.3	6.1%
Private Service-Providing	1871.1	2074.5	2107.0	32.5	1.6%	235.9	12.6%
Trade, Transportation, & Utilities	575.0	617.3	621.0	3.7	0.6%	46	8.0%
Wholesale Trade	120.4	119.5	121.1	1.6	1.3%	0.7	0.6%
Retail Trade	312.8	333.8	334.8	1	0.3%	22	7.0%
Transportation & Utilities	141.8	164.0	165.1	1.1	0.8%	23.3	16.4%
Information	43.2	45.3	45.6	0.3	0.7%	2.4	5.6%
Financial Activities	137.1	153.1	158.1	5	3.3%	21	15.3%
Finance & Insurance	105.3	115.0	118.4	3.4	3.0%	13.1	12.4%
Real Estate, Rental & Leasing	31.8	38.1	39.8	1.7	4.5%	8	25.2%
Professional & Business Services	339.1	404.3	406.6	2.3	0.6%	67.5	19.9%
Professional, Scientific & Technical Services	110.9	132.1	136.1	4	3.0%	25.2	22.7%
Management of Companies & Enterprises	35.1	44.9	45.7	0.8	1.8%	10.6	30.2%
Admin, Support, Waste Mgt & Remediation Services	193.1	227.4	224.8	-2.6	-1.1%	31.7	16.4%
Education & Health Services	395.6	423.9	431.9	8	1.9%	36.3	9.2%
Educational Services	51.9	59.3	60.2	0.9	1.5%	8.3	16.0%
Health Care & Social Assistance	343.7	364.6	371.7	7.1	1.9%	28	8.1%
Leisure & Hospitality	276.8	319.6	329.8	10.2	3.2%	53	19.1%
Arts, Entertainment & Recreation	30.2	35.6	37.5	1.9	5.3%	7.3	24.2%
Accommodation & Food Services	246.7	284.0	292.3	8.3	2.9%	45.6	18.5%
Other Services	104.2	111.0	113.9	2.9	2.6%	9.7	9.3%
Government	421.7	428.0	430.1	2.1	0.5%	8.4	2.0%
Federal Government	50.1	49.2	49.1	-0.1	-0.2%	-1	-2.0%
State Government	94.8	96.5	97.9	1.4	1.5%	3.1	3.3%
Local Government	276.8	282.3	283.2	0.9	0.3%	6.4	2.3%

Table 1 shows that total Tennessee nonfarm employment was 3 million, 10 thousand in 2017. The most rapidly growing industries during 2012-2017 were management of companies and enterprises, real estate rental and leasing, and arts and entertainment and recreation.

Tennessee Job Growth 2016-2017

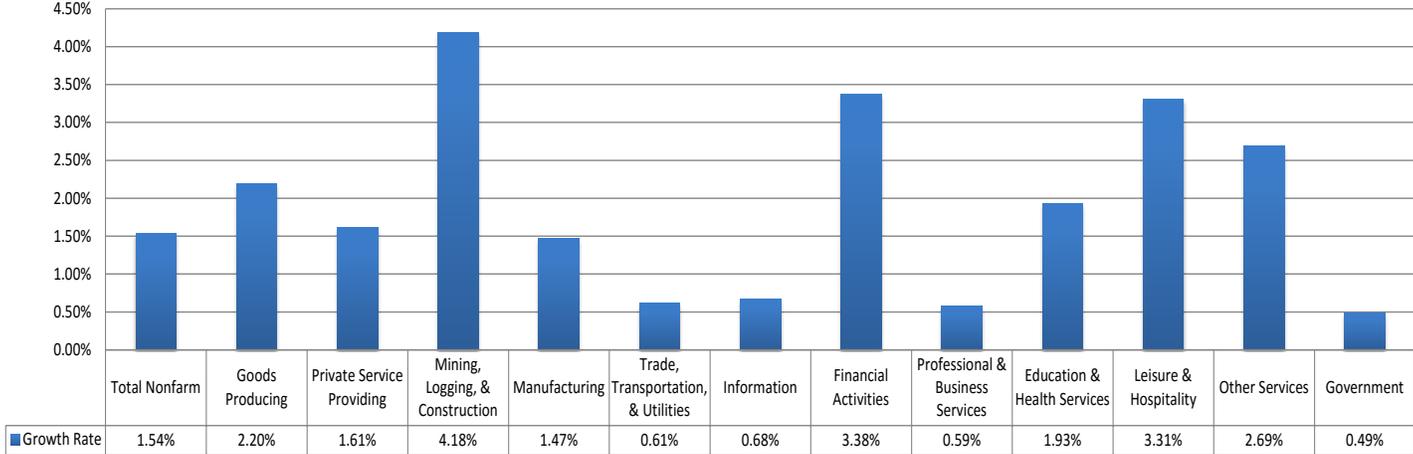


Figure 2



Employers

Employers

The total number of establishments in Tennessee grew 2.4 percent to 156,909 in 2017, an increase from the 2016 total of 153,167.

All but one of the Metropolitan Statistical Areas (MSAs) in Tennessee experienced a positive increase in the number of establishments in 2017; the one

exception was Cleveland with a -1.0 percent decrease. The five with the most rapid rates of growth included Nashville (4.5 percent), Clarksville (3.9 percent), Chattanooga (3.2 percent), Knoxville (2.5 percent), and Johnson City (2.2 percent). Jackson, Morristown, Memphis, and Kingsport/Bristol all grew close to 1.5 percent.

Within the rapidly-expanding Nashville MSA, Cheatham County had the highest increase in number of establishments with 6.6 percent, followed by Williamson (5.2 percent), Rutherford and Wilson (5.1 percent), and Robertson (4.5 percent) counties. Only Hickman (-1.3 percent) and Trousdale (0 percent) counties did not experience growth.

Overall, 77 counties had positive growth, with 14 losing some establishments and four that remained unchanged at zero percent growth. The counties with the lowest growth rates in establishments were small rural counties with less than 3,600 employment spread across the state, including Bledsoe (-5.7 percent), Meigs (-3.2 percent), Decatur (-3.2 percent), Lake (-2.6 percent), and Clay (-1.5 percent). Of the four counties with zero percent growth in establishments, two were either in an MSA (Trousdale) or a micropolitan area (Marshall).

Wages

The annual average wage in Tennessee increased 3.0 percent to \$48,822 in 2017, up from the 2016 total of \$47,401. All of the Metropolitan Statistical Areas (MSAs) had positive wage growth rate in 2017. The MSAs with the highest growth rates were Clarksville and Morristown, both at 4.0 percent. Jackson (3.7), Johnson City (3.6), and Cleveland (3.6) had wage growth faster than the state average, while Memphis and Nashville wages grew slightly slower at 2.7 percent.

Except for Meigs County with wage growth of 8.7 percent, all the other counties with high average annual wage growth were in metropolitan or micropolitan areas, including Fayette (11.0 percent, Memphis MSA), Union (9.9 percent, Knoxville MSA), Marshall (8.2 percent, Lewisburg Micropolitan Area), and Hawkins (7.7 percent, Kingsport-Bristol MSA).

Only seven counties had decreasing annual average wages. Two were rural: Hardin (-4.2) and Van Buren (-4.2), but the rest were in MSAs or micropolitan areas: Jackson (-2.9, Cookeville micropolitan), Polk (-8.5, Cleveland MSA), Bedford (-0.2, Shelbyville micropolitan), Chester (-0.6, Jackson MSA), and Tipton (-2.4, Memphis MSA).

Detailed Industry Employment

The following table (table 2) lists the twenty largest three digit industries in Tennessee, by North American Industry Classification System (NAICS). With a total employment of 1,972,838, these industries make up roughly 68 percent of the total employment, or roughly two of every 3 jobs. The top five industries include:

- Food services and drinking places
- Educational services
- Administrative and support services
- Ambulatory health services
- Hospitals

More people are now employed in outpatient healthcare settings (148,424) than in hospitals (142,369), with the former growing an average of 2.4 percent in 2016-2017 compared to 1.5 percent for hospitals.

Over the year, the rapidly growing industries in terms of number of establishments added include these six:

- Merchant wholesalers, durable goods (9.7 percent growth)
- Merchant wholesalers, nondurable goods (9.1 percent growth)
- Management of companies and enterprises (6.9 percent growth)
- Transportation equipment manufacturing (4.2 percent growth)
- Food services and drinking places and professional and technical services (3.7 percent growth).

The highest annual weekly wages were found in the management of companies and enterprises (\$1,943), insurance carriers and related activities (\$1,471), professional and technical services (\$1,456), merchant wholesalers, durable goods (\$1,309), and credit intermediation and related activities (\$1,294) industries.

Table 2: Tennessee Counties with Largest Wage Increases

County	Region	Avg. # of Establishments 2017	Avg # of Establishments 2016	%	Avg. Ann. Wage 2017	Avg. Ann. Wage 2016	%
FAYETTE	West	599	592	1.2	\$47,504	\$42,793	11.0
UNION	East	230	225	2.2	\$35,290	\$32,120	9.9
MEIGS	East	122	126	-3.2	\$38,880	\$35,770	8.7
MARSHALL	Middle	532	532	0.0	\$41,061	\$37,953	8.2
HAWKINS	East	674	651	3.5	\$41,790	\$38,809	7.7
HUMPHREYS	Middle	340	335	1.5	\$49,479	\$46,070	7.4
LOUDON	East	983	965	1.9	\$42,585	\$39,686	7.3
LEWIS	Middle	219	218	0.5	\$31,288	\$29,213	7.1
PERRY	Middle	125	125	0.0	\$31,566	\$29,495	7.0
GRAINGER	East	275	266	3.4	\$37,205	\$34,860	6.7

The Table above lists the ten counties with the largest annual average wage increases from 2016-2017. Five out of ten counties represented are from the East region, four from the Middle, and one from the West.

Table 3: Regional Employment, Number of Firms, and Payroll, 2016-2017

Area	Total Employment 2017	# of Firms 2017	# of Firms 2016	2016-2017 Increase	Total Wages 2017 (\$ Bill)	Total Wages 2016 (\$ Bill)	2016-2017 Increase (\$ Bill)
East Region	997,230	50,724	49,629	1,095	44.6	42.8	1.8
Middle Region	1,180,172	63,364	60,910	2,454	59.7	56.3	3.4
West Region	693,930	32,070	31,668	402	34.7	33.7	1

The table above summarizes the growth in employment, number of firms, and total payroll in the East, Middle, and West Regions from 2016-2017. All regions increased the number of firms and payroll, with the largest increases in the Middle region.

Table 4: Tennessee's Largest Detailed Industries, 2017

NAICS	Industry Title	Avg. # of Establishments 2017	Avg. # of Establishments 2016	% Change	Avg. Ann. Emp. 2017	Avg. Ann. Emp. 2016	%	2017 AWW (\$)
238	Specialty trade contractors	7,513	7,275	3.3	78,094	74,896	4.3	1,008
336	Transportation equipment manufacturing	399	383	4.2	74,505	71,931	3.6	1,150
423	Merchant wholesalers, durable goods	5,758	5,250	9.7	63,433	62,196	2.0	1,309
424	Merchant wholesalers, nondurable goods	2,539	2,327	9.1	41,434	40,946	1.2	1,275
441	Motor vehicle and parts dealers	2,586	2,536	2.0	46,901	45,606	2.8	1,030
445	Food and beverage stores	2,178	2,177	0.0	54,444	54,474	-0.1	417
452	General merchandise stores	1,736	1,710	1.5	72,247	73,561	-1.8	459
484	Truck transportation	2,335	2,268	3.0	56,662	58,748	-3.6	991
522	Credit intermediation and related activities	4,791	4,722	1.5	53,972	53,599	0.7	1,294
524	Insurance carriers and related activities	3,631	3,566	1.8	44,703	43,127	3.7	1,471
541	Professional and technical services	17,738	17,110	3.7	137,486	133,403	3.1	1,456
551	Management of companies and enterprises	1,324	1,239	6.9	45,467	44,746	1.6	1,943
561	Administrative and support services	8,737	8,540	2.3	217,397	219,328	-0.9	660
611	Educational services	1,989	1,958	1.6	229,243	227,395	0.8	817
621	Ambulatory health care services	10,437	10,285	1.5	152,003	148,424	2.4	1,222
622	Hospitals	224	221	1.4	144,551	142,369	1.5	1,138
623	Nursing and residential care facilities	1,110	1,100	0.9	64,890	65,136	-0.4	591
624	Social assistance	2,550	2,525	1.0	49,321	48,902	0.9	447
722	Food services and drinking places	11,412	11,001	3.7	256,249	250,072	2.5	335
921	Executive, legislative and general government	581	582	-0.2	89,836	89,727	0.1	865

Tennessee's five largest detailed industries are all found in the service-providing industries of food services, educational services, administrative and support services, ambulatory healthcare and hospitals.

Analysis of Median Wages in Tennessee 2016 – 2017



Wages & Income

Among the 22 major occupational groups, median wages increased for 20 of the groups. The highest percentage changes were for healthcare support occupations (5.03 percent), community and social services occupations (4.83 percent), and for arts, design, entertainment, sports and media occupations (4.36 percent). The two major groups experiencing a decrease were sales and related occupations (-0.37 percent) and farming, fishing and forestry occupations (-2.51 percent).

Median hourly wage growth for Tennessee from 2016 to 2017 averaged 3.2 percent. All areas reported increases. The top three areas displaying percentage changes greater than the state included the West Tennessee BOS (5.08 percent), East Tennessee BOS (3.83 percent), and Knoxville MSA (3.41 percent). Just below the state’s growth rate were the Nashville MSA (3.15 percent) and Morristown MSA (3.1 percent).

There were no areas reporting a loss in median wages over the same period. The area with the lowest increase was the Cleveland MSA at 0.23 percent.

2017 Median Hourly Wages, State and Sub-State Areas

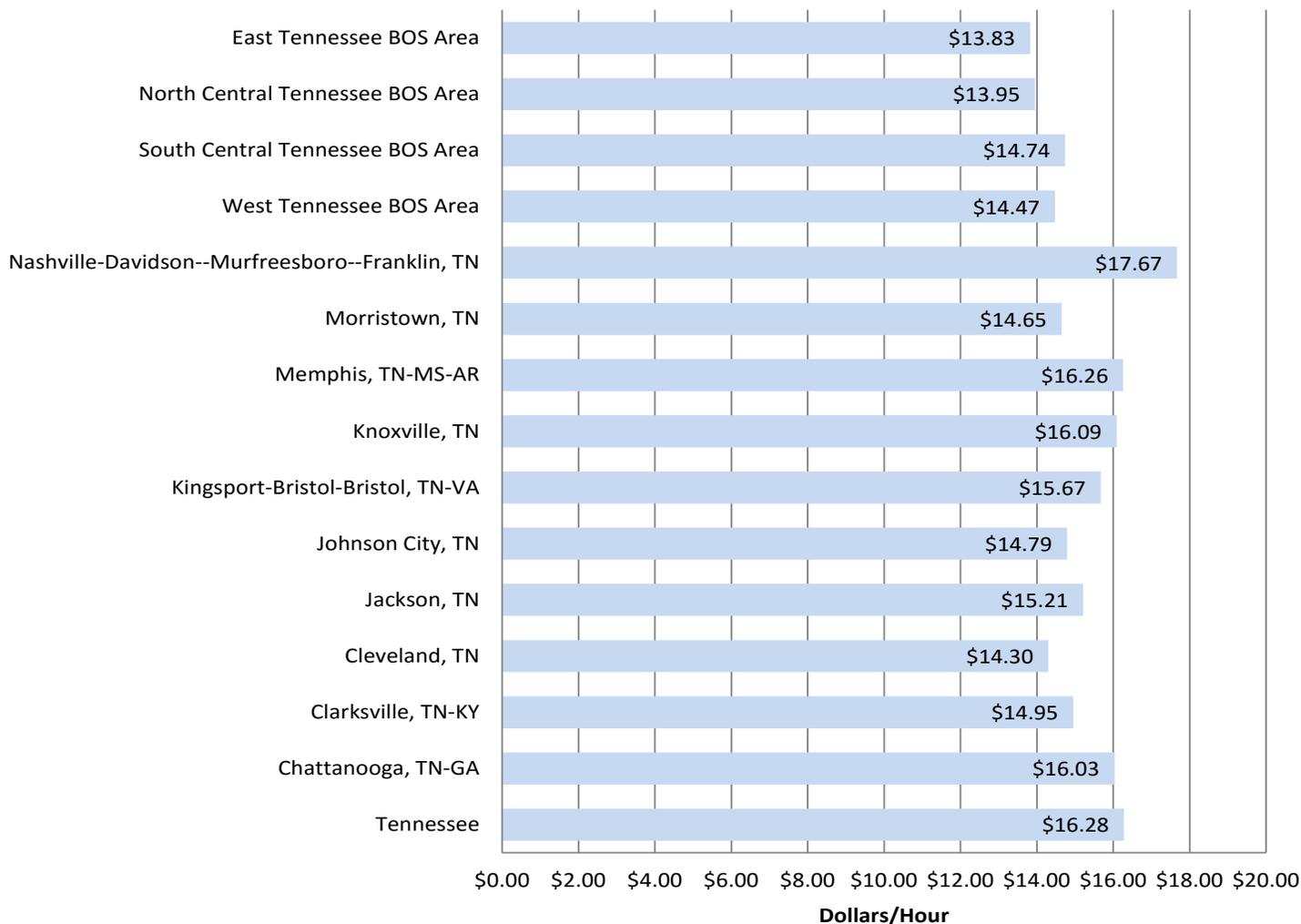


Figure 3

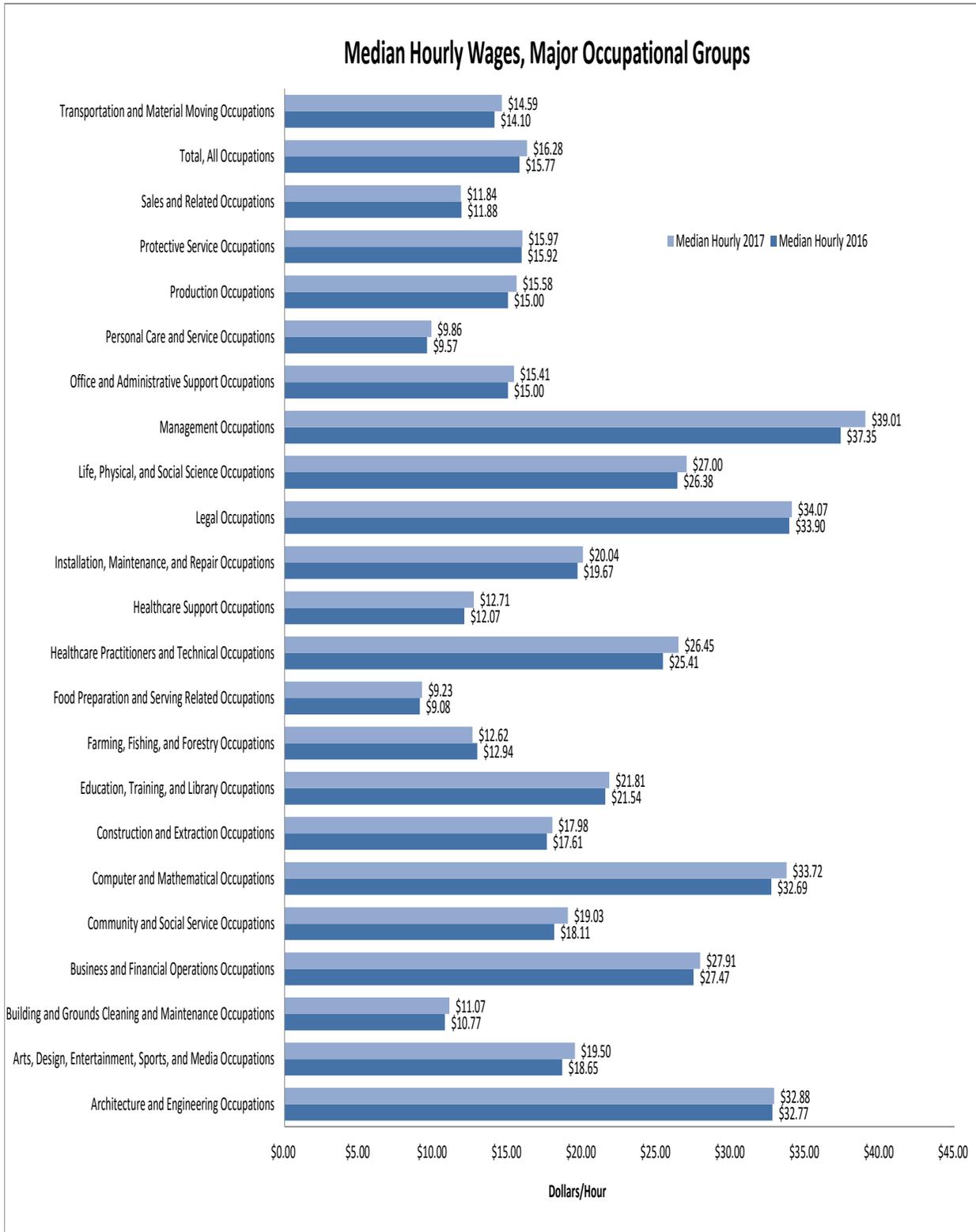


Figure 4



Labor Force & Demographics

Labor Force and Demographics

The annual average unemployment rate for the U.S. was 7.4 percent in 2013; 6.2 percent in 2014; 5.3 percent in 2015; 4.9 percent in 2016; and 4.4 percent in 2017. Tennessee's 2017 rate of 3.7 was lower than the national average of 4.4 percent. (Figure 3)

The annual average unemployment rate for Tennessee dropped from 4.7 percent in 2016 to 3.7% in 2017. The Tennessee July seasonally adjusted rate remained constant for both the 2017 and 2018 years at 3.5 percent while

the U.S. declined from a rate of 4.3 percent to 3.9 percent, a decrease of -0.4. The not seasonally adjusted 2017 U.S. rate of 3.7 percent is the lowest rate seen in ten years, signaling a continual decline in the rates of unemployment. Additionally, the Tennessee 2017 seasonally adjusted rate, also 3.7 percent, is also the lowest the unemployment rate has been in the last ten years. Detailed information on the labor force within Tennessee's East, Middle, and West regions can be found later in the report in the regional analysis section.

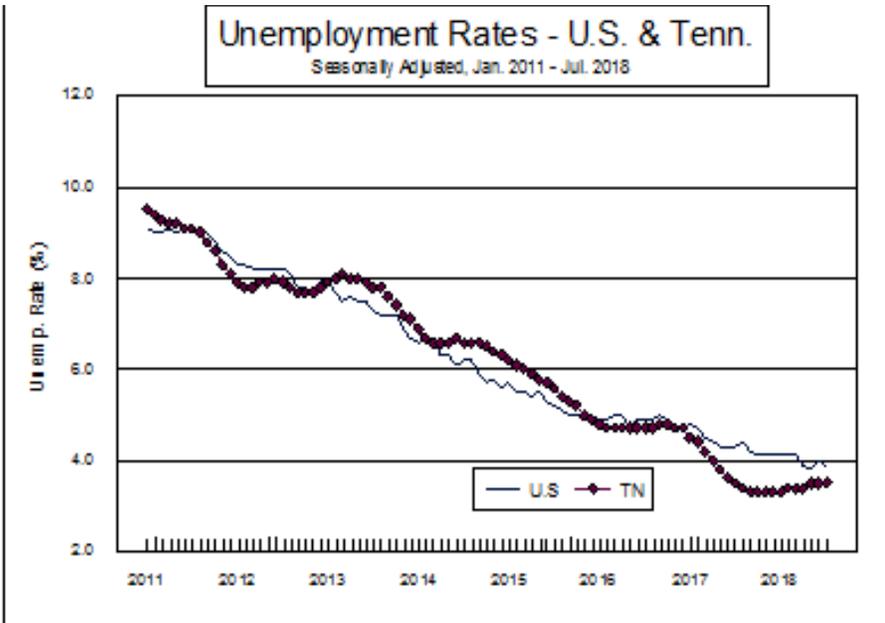


Figure 5

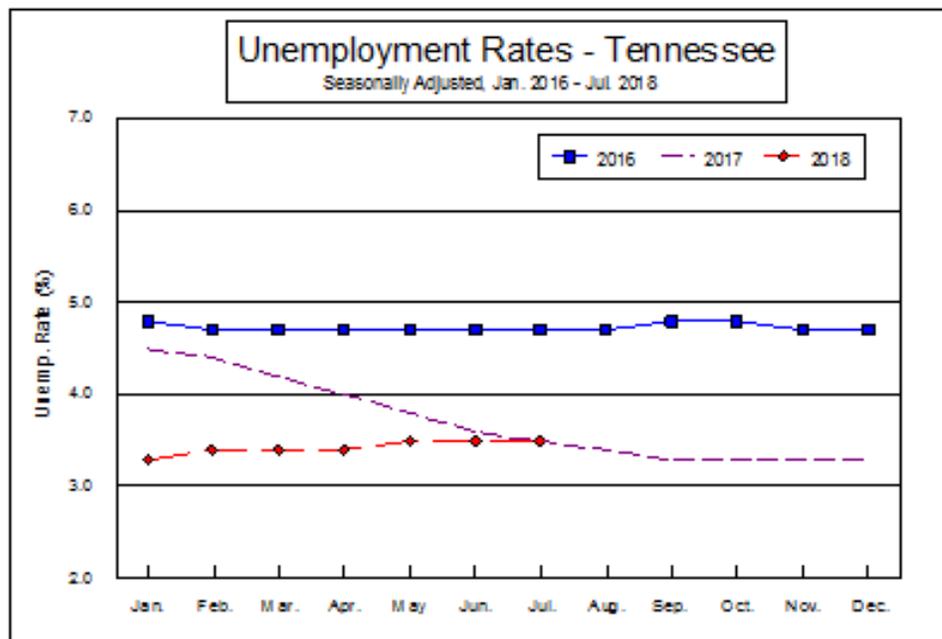


Figure 6



Tennessee Industry and Occupational Employment Projections

2017-2019

From a base of 3.2 million jobs in 2017, total employment for Tennessee, including agricultural, self-employed, and private household workers, is expected to grow to 3.3 million by 2019. Expected to increase by 1.8 percent annually, Tennessee’s expanding economy is continuing steady growth across all industry sectors. Most of the employment growth will be in the service-providing industries with an annual growth rate of 2 percent and the addition of 103,940

jobs. The service-providing sector is expected to grow more than two and a half times as rapidly as the goods producing sector over this period, with all sectors showing positive growth. Specifically, the professional and business services and the financial activities sectors are expected to grow the most rapidly, with 3.6 and 3.2 percent annual growth rates, respectively. Professional and business services and education and health services together are expected to create the most new jobs (56,820), nearly 50 percent of the total. In the goods producing sector healthy growth within construction (1.6 percent) and the creation of 3,970 new jobs through 2019 can only be considered positive indicators.

2017-2019 Goods Producing

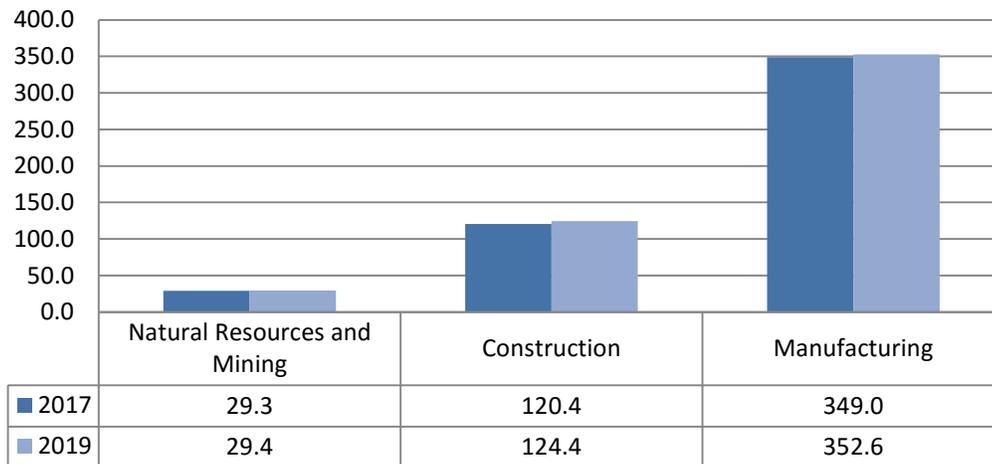


Figure 7

2017-2019 Service-Providing

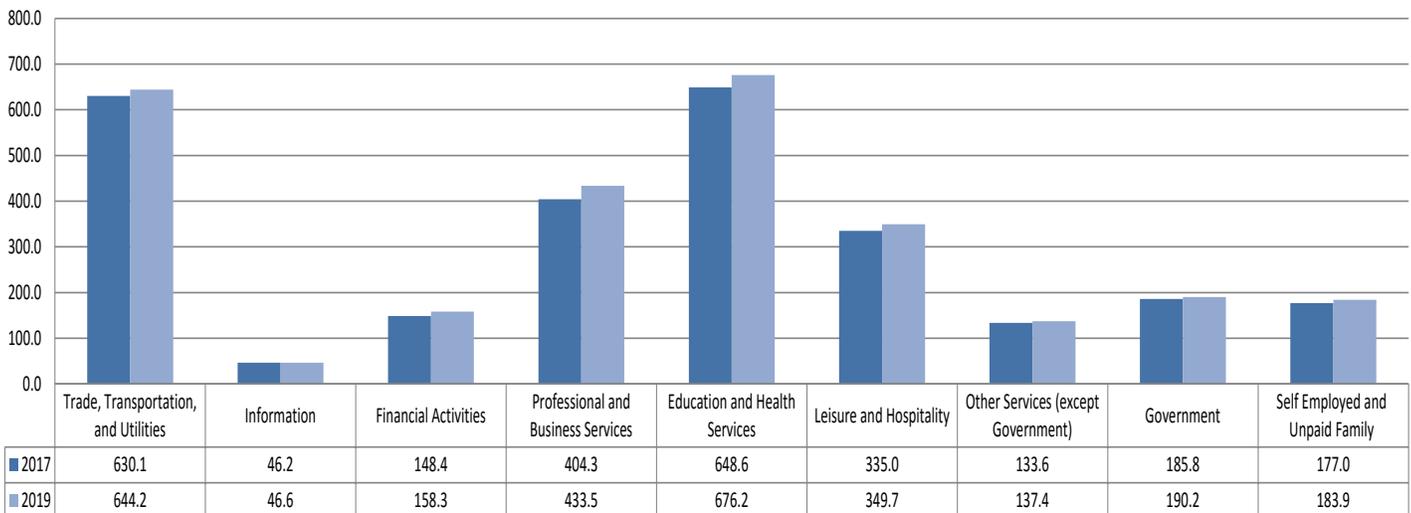


Figure 8

Table 5: Major Industry Sector Employment

Industry Sector Code	Title	2017 Employment (Thousands)	2019 Projected Employment (Thousands)	New Jobs Created (Thousands)	Annual Average Growth Rate (%)
000000	Total All Industries	3207.7	3326.3	118.6	1.8%
101000	Goods Producing	498.6	506.4	7.8	0.8%
101100	Natural Resources and Mining	29.3	29.4	0.2	0.3%
101200	Construction	120.4	124.4	4.0	1.6%
101300	Manufacturing	349.0	352.6	3.7	0.5%
102000	Service-Providing	2532.1	2636.0	103.9	2.1%
102100	Trade, Transportation, and Utilities	630.1	644.2	14.0	1.1%
102200	Information	46.2	46.6	0.4	0.5%
102300	Financial Activities	148.4	158.3	9.8	3.3%
102400	Professional and Business Services	404.3	433.5	29.2	3.6%
102500	Education and Health Services	648.6	676.2	27.6	2.1%
102600	Leisure and Hospitality	335.0	349.7	14.8	2.2%
102700	Other Services (except Government)	133.6	137.4	3.8	1.4%
102800	Government	185.8	190.2	4.3	1.2%
102900	Self Employed and Unpaid Family	177.0	183.9	6.9	1.9%

Fastest Growing Industries

The average annual growth rate for all industries for 2017-2019 is expected to be 1.8 percent, with service-providing industries growing almost three times as fast as the goods producing industries.

The fewest number of new jobs expected over this two year period will be in natural resources and mining (180) and information (430). With just one in eight new jobs being created in the goods producing versus the service-providing sector, the long term shift from the goods producing to the service sectors is clear

The fastest growing detailed industries over this period not surprisingly align with the major service providing industry sectors experiencing growth in Tennessee.

Professional and Business Services: Part of the reason for the rapid growth of this industry sector is the fast growth of several of its detailed industries, including the business services industries of accounting, tax preparation, book-keeping, and payroll services (6.1 percent) and management, scientific, and technical consulting services (9.6 percent).

With the passage of the new federal tax law, it is likely that accounting and tax preparation services will continue robust growth. The most rapidly growing industry is facilities support services (12.9 percent), as a result of the booming construction industry and the outsourcing of building maintenance and management. Waste collection and waste treatment have also seen rapid growth, as recycling is sustained and population and industry growth advance the production of hazardous and nonhazardous waste.

Financial Activities: Key industries in this fast-growing sector include insurance carriers, expected to add more than 2,000 jobs; automotive equipment rental and leasing, and securities and commodities brokers. The demand for financial services is likely to grow due to the aging population seeking retirement services as well as companies seeking investment banking services.

Insurance carriers' growth is happening through mergers and acquisitions as well as investments in technology as they expand their reach through digital services. Tennessee's population increased by 0.8 percent from 2015 to 2016. As tourism and population growth increase, particularly in Tennessee's urban areas, car and truck rental should advance as well.

Leisure and Hospitality: This is the third most rapidly-growing industry sector in Tennessee with a projected annual growth rate of 2.2 percent. One of the fastest-growing sectors is special food services, expected to create more than 1,000 new jobs over the two year period. This industry includes food service contractors, caterers, and mobile food services such as food trucks and custom home food delivery.

Education and Health Care Services: This industry sector expected to be the largest in 2019 contains two of the most rapidly-growing industries – 6233, Continuing Care Retirement Communities and Assisted Living Facilities, and 6241, Individual and Family Services. Assisted living facilities could create more than 1500 new jobs during this period, as the population ages during a time of smaller families and somewhat increased availability of long term care insurance.

The individual and family services industry could see more than 2800 new jobs created, with additional funding for youth services, drug treatment and counseling, social assistance for the developmentally disabled, foster care and related services and a need for more support for families as the population increases. In 2012, Tennessee had the second highest opioid prescription rate in the nation after Alabamaⁱ. Recent research reported in the 2018 Economic Report to the Governorⁱⁱ demonstrated that prescription opioid use in Tennessee has had a significant effect in lowering the labor force participation rate, and policies to combat this will likely involve some expansion in the family services industry.

Table 6: Fastest Growing Industries with More Than 1,000 Employment in 2017

Industry Title	2017 Employment	2019 employment	New Jobs Created	Annual Average Growth Rate (%)
Facilities Support Services	4,770	6,080	1,310	12.9
Automotive Equipment Rental and Leasing	6,820	8,190	1,380	9.6
Management, Scientific, and Technical Consulting Services	29,150	34,990	5,850	9.6
Software Publishers	2,930	3,400	470	7.7
Waste Collection	2,680	3,040	360	6.4
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	22,390	25,180	2,790	6.1
Insurance Carriers	19,770	22,150	2,380	5.8
Electronic Shopping and Mail Order Houses	5,580	6,240	660	5.8
Warehousing and Storage	34,010	37,990	3,980	5.7
Data Processing, Hosting, and Related Services	5,570	6,210	640	5.6
Waste Treatment and Disposal	2,080	2,320	240	5.5
Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	1,020	1,130	110	5.4
Continuing Care Retirement Communities and Assisted Living Facilities	14,470	16,040	1,570	5.3
Commercial and Industrial Machinery and Equipment Rental and Leasing	2,710	3,000	290	5.1
Special Food Services	10,360	11,450	1,090	5.1
Individual and Family Services	26,640	29,440	2,800	5.1
Securities and Commodity Contracts Intermediation and Brokerage	5,590-	6,180	590	5.1
Other Support Services	10,030	11,080	1,050	5.1
Other Financial Investment Activities	4,300	4,750	450	5.1
Other Professional, Scientific, and Technical Services	12,740	14,070	1,330	5.1

The fastest growing industries included facilities support, automotive rental and leasing, management consulting services, software publishers, and waste collection.

Other Rapidly Growing Industries: Two industries in the information sector are expected to be in the top 20 in terms of industry growth: data processing, hosting, and related services (5.6 percent) and software publishers (7.7 percent), creating more than a thousand new jobs. Slow overall employment growth in the information sector is due to industries such as the publishing of books, newspapers, and related items and broadcasting, which are expected to decline during this period.

Two industries growing three times faster than average include electronic shopping and mail order houses (5.8 percent) and warehousing and storage (5.7 percent). Warehousing and storage is expected to create the second-highest number of new jobs by 2019 (nearly 4,000). The rapid development of this industry contrasts with the slower projected growth of retail trade in general (0.8 percent).

Goods Producing Sectors:

Among the goods producing sectors, the **Construction** sector is expected to be the most rapidly growing at 1.6 percent. Buoyed by low interest rates, the fastest growing detailed industries will be in residential building construction (2361), including single and multifamily and home remodelers. Other fast-growing sectors include building equipment contractors (2382) including electricians, plumbing and air conditioning, and site preparation and other construction installers (2389). Related industries such as lumber and construction wholesalers (NAICS 4233) and activities related to real estate (NAICS 5313) are expanding as well.

Manufacturing is expected to be the fourth largest employment sector in Tennessee, comprising 352,610 jobs in 2019 and with average weekly wages of \$1,084 in the third quarter of 2017.

Despite national trends showing manufacturing declining, a least five manufacturing-related industries, including dairy products (NAICS 3115), other nonmetallic mineral products (NAICS 3279), motor vehicle parts (NAICS 3363), and motor vehicle manufacturing (NAICS 3361) are expected to grow faster than two percent and cause total manufacturing employment to move in a positive direction. Other rapidly-growing industries include metal manufacturing (3324), electromedical and measuring instruments (3345) and cement and concrete manufacturing (3273).

Major Industry Sector Employment, 2017-2019

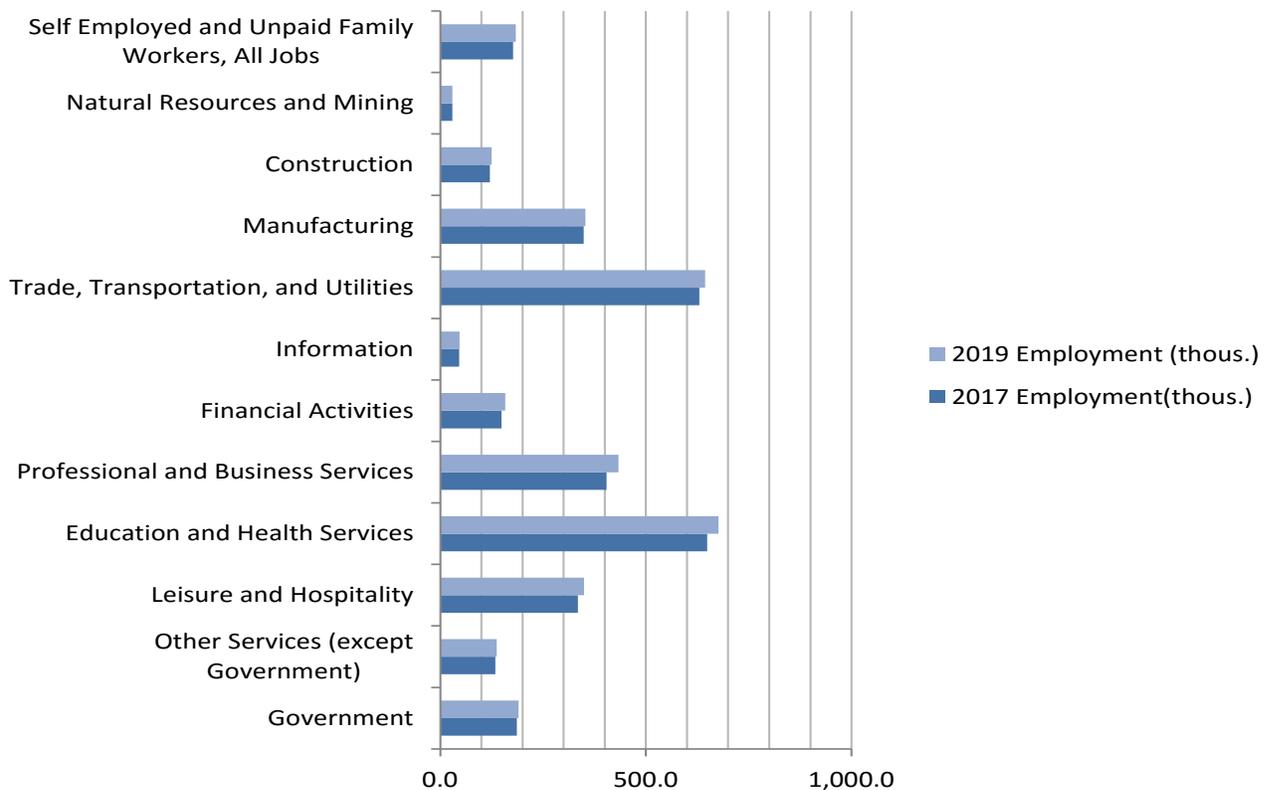


Figure 9

Occupational and Wage Growth

Occupational and Wage Growth

The fastest-growing occupational groups from 2017-2019 primarily reflect those industry sectors experiencing growth; however, computer, business and financial, and managerial occupations are found in most industries.

Table 7: Major Occupational Groups Summary, 2017-2019

Occupation Title	OCC Code	Base Employment	Projection Employment	Annual Average Growth	Annual Total Openings	Median Wage
Computer and Mathematical Occupations	15-0000	54000	57610	3.29%	5445	70140
Business and Financial Operations Occupations	13-0000	121680	128900	2.92%	14695	58050
Healthcare Support Occupations	31-0000	79830	83920	2.53%	11225	26430
Management Occupations	11-0000	215990	226280	2.35%	22350	81140
Community and Social Service Occupations	21-0000	50260	52650	2.35%	6650	39580
Personal Care and Service Occupations	39-0000	105990	110860	2.27%	18655	20500
Education, Training, and Library Occupations	25-0000	164920	172360	2.23%	17740	45360
Food Preparation and Serving Related Occupations	35-0000	277710	290240	2.23%	54440	19200
Legal Occupations	23-0000	16000	16690	2.13%	1320	70870
Healthcare Practitioners and Technical Occupations	29-0000	198380	206090	1.92%	14830	55020
Arts, Design, Entertainment, Sports, and Media Occupations	27-0000	46480	48280	1.92%	5415	40570
Building and Grounds Cleaning and Maintenance Occupations	37-0000	108430	112600	1.90%	15880	23030
Transportation and Material Moving Occupations	53-0000	288250	299330	1.90%	41075	30340
Protective Service Occupations	33-0000	67370	69910	1.87%	8435	33220
Architecture and Engineering Occupations	17-0000	47040	48790	1.84%	4360	68380
Life, Physical, and Social Science Occupations	19-0000	16470	17090	1.86%	1800	56160
Total, All Occupations	00-0000	3207740	3326330	1.83%	420410	33860
Installation, Maintenance, and Repair Occupations	49-0000	138950	144040	1.82%	15890	41680
Construction and Extraction Occupations	47-0000	111700	115220	1.56%	13355	37400
Office and Administrative Support Occupations	43-0000	492480	507270	1.49%	63085	32060
Sales and Related Occupations	41-0000	310600	318190	1.21%	46765	24630
Farming, Fishing, and Forestry Occupations	45-0000	18000	18300	0.83%	2805	26250
Production Occupations	51-0000	277220	281730	0.81%	34200	32400

The most rapidly growing occupational groups are the computer and mathematical, business and financial operations, and healthcare support.

Occupational and Wage Growth

Computer and Mathematical occupations with an annual growth rate of 3.3 percent is the fastest growing occupational group. Employment is expected to top 57,610 in the state by 2019, creating annual total openings of more than 5,400 and paying the third highest median wages (\$70, 140) of the 22 occupational groups.

The largest occupation is computer user support specialists (10,050 employment in 2017), followed by computer systems analysts. The fastest growing mathematical occupations with more than 30 employment in 2017 are statisticians (8.3 percent annually), actuaries (5.2) and operations research analysts (5.0). Among the computer occupations, the fastest growing are software developers, applications (5.0) and information security analysts (4.8).

Business and Financial Operation occupations, with the fifth highest median wage (\$58,050) are expected to increase employment by 2.9 percent annually. Among the fastest-growing occupations are tax preparers (6.2 percent annually); insurance appraisers, auto damage (5.8 percent), and personal financial advisors (4.8). Among those with the largest number of openings are accountants and auditors, with more than 2,420 openings per year, and human resource specialists, with more than 1,270 openings; both of these require bachelor's degrees.

In support of these occupations are **Office and Administrative** occupations, having the largest number of annual openings expected (63,080). Two prominent occupations in this group are customer service representatives (9,210 annual openings) and stock clerks and order fillers (7,660 annual openings), usually requiring a high school diploma or the equivalent.

Healthcare Support occupations, the third most rapidly growing group (2.5 percent annually) has projected annual openings of 11, 220. The median wage of \$26,430 is the sixth lowest among the occupational groups. The largest occupations in this group are nursing assistants, with projected employment of 32,870 in 2019 and 4,160 openings, and medical assistants, with projected employment of 15,690 and expected 2,030 openings. The most rapidly growing occupations are veterinary assistants and laboratory animal caretakers (6.1 percent annually) and home health aides (4.9 percent).

Management occupations' employment is projected to increase by 2.4 percent annually. Not surprisingly, this occupational category has the highest annual wage (\$81, 140) of the 22 occupational groups. The fastest-growing occupations include financial managers (3.6 percent annually), training and development managers (3.5 percent) and emergency management directors (3.1 percent), important in planning for natural disaster and crisis management. Other large management occupations include general and operations managers; farmers, ranchers, and other agricultural managers, and food service managers (2,010 openings per year).

Community and Social Service occupations are also expected to increase by 2.4 percent annually and expected to have more than 6600 openings each year. However, median wages are in the middle range, at \$39,580, but still above the state median of \$33,860. Fast-growing occupations include: marriage and family therapists (4.4 percent annually), community health workers (3.8 percent), and substance abuse and behavioral disorder counselors (3.6 percent). Reducing the opioid crisis will likely cause growth in these areas to continue. Some of the largest occupations include clergy, directors of religious activities; and child, family, and school social workers (660 openings expected annually).

Other Major Occupational Groups with large numbers of annual openings include **food preparation and serving related** occupations (54, 440 annual openings), **sales and related occupations** (46,760), **transportation and material moving** occupations (41,070), and **production occupations** (34,200 openings, the fifth largest group). In production, among the fastest growing occupations are medical appliance technicians (5.3 percent), computer numerically controlled machine tool programmers (2.4 percent), and painters, transportation equipment (3.2 percent). The largest occupational categories are assemblers and fabricators (80,610 projected employment) and metal and plastic workers (50,430 projected).

Healthcare practitioners have the tenth largest number of openings (14,830) and the seventh highest per capita average wage (\$55,020). The occupations in this group with the most openings include registered nurses, licensed practical nurses, pharmacy technicians, medical and laboratory technicians, and nurse practitioners. Among the higher paying occupational groups are **legal occupations** with a median annual wage of \$70,870 (second highest) and **architecture and engineering** occupations paying on average \$68,380.

Emerging Growth Sectors

The Solar Jobs Census of 2017 named Tennessee 14th in the U.S. for solar jobs, with an estimated 4411 jobs in 2017ⁱⁱⁱ. They reported an estimated 2100 jobs in installation; 1500 in manufacturing; 270 in sales and distribution; 380 in project development; and 110 in other areas. The industries in which solar workers are employed are not easily identified in the current North American Industry Classification System (NAICS), so it is difficult to review these results. As the NAICS is updated in future years to better identify solar industries, more information should be available.

A recent study by the Tennessee Department of Economic and Community Development (January, 2018) on the cluster of Healthcare and Medical Devices industries in Tennessee reported employment of more than 26,600 Tennesseans and projected employment of 28,000 by 2022^{iv}. These industries alone are estimated to employ more than 1500 team assemblers and 700 medical appliance technicians, as well as more than 1200 engineers and industrial engineering technicians. The medical apparatus manufacturing industry is included in NAICS code 3345, expected to increase by 4.3 percent from 2017 to 2019; also faster growing are scientific research and development services (5417) at 1.2 percent and architectural, engineering, and related services, which include testing laboratories, at 1.5 percent.

Critical Skills

The assignment of skills and importance rankings to occupations are based on scientifically-designed employer surveys by occupational analysts in the Employment and Training Administration at the U.S. Department of Labor. When occupations are growing, the skills in those occupations will be ranked more highly.

The five most critical skills required across all occupations based on the estimated employment increases through 2019 include speaking, active listening, reading comprehension, social perceptiveness, and critical thinking. With the growth in the service industry, especially in leisure and hospitality, food service, and customer service occupations, service orientation has grown in importance.

Table 8: Critical Skills for Projected Employment to 2019

Skills	2017 Employment	2019 Employment	Employment Increase 2017-2019
Speaking	1,765,803	1,844,545	78,742
Active Listening	1,714,677	1,789,373	74,696
Reading Comprehension	842,194	882,922	40,728
Social Perceptiveness	874,065	911,561	37,496
Critical Thinking	615,710	646,761	31,051
Writing	421,759	439,779	18,020
Service Orientation	473,035	490,961	17,926
Monitoring	399,498	415,927	16,429
Instructing	319,907	335,756	15,849
Judgment and Decision Making	269,353	283,957	14,604

With the increasing speed of changes in technology and growth in knowledge, and the need for lifelong learning, instruction skills are growing in importance. Increased decentralization of production and service processes require workers to take on more decision making roles.

More detailed occupational projections can be found on the Labor Market Information Section of job-s4tn.gov and on the national website www.projectionscentral.com.

Endnotes

i Paulozzi, L. J., K. A. Mack and J. M. Hockenberry (2014). “Vital Signs: Variation Among States in Prescribing of Opioid Pain Relievers and Benzodiazepines — United States, 2012.” MMWR. Morbidity and Mortality Weekly Report 63: 563-568.

ii Fox, W., Murray, M. et al. (2017). An Economic Report to the Governor of the State of Tennessee 2018. Knoxville, Tennessee: University of Tennessee Boyd Center for Business and Economic Research, p. 80. <http://cber.haslam.utk.edu/erg/erg2018.pdf>

iii Solar Foundation, The.(2017). National Solar Jobs Census 2017. SolarJobsCensus.org

iv Patten, J. Healthcare and Medical Devices in Tennessee. (January 2018). Tennessee Department of Economic and Community Development, Center for Economic Research in Tennessee (CERT).

Middle Skill Occupations in Demand

The following table lists a variety of middle skill occupations in demand in Tennessee. Using the Tennessee Department of Labor and Workforce's newly completed statewide occupational projections for 2016-2026, an initial list was developed by identifying occupations within 16 broad educational clusters and nearly 200 detailed programs of study within those clusters that were expected to be growing through the year 2026 at least as fast as the average for all occupations. Middle skill includes occupations with the usual job entry requirement of a high school diploma but less than a bachelor's degree. To be included in the list, the jobs had to have a median annual wage in 2017 of at least \$29,393, which is the equivalent of \$14.13 an hour for a 40 hour week year-round.

Each of the occupations were in programs of study that had more job market openings expected in the long run each year than the number of newly trained individuals entering the job market¹. One additional measure is included to describe the short term labor market conditions for these occupations. On or around September 13-14, 2018, the state's jobs4tn.gov website was queried as to the current number of job openings for these jobs compared to the number of candidates with active resumes registered on the system. That ratio of candidates to job openings appears in column B in the following table. For example, for transportation inspectors, in the short term there were currently more than five candidates seeking jobs on the system than jobs posted.

If more candidates were needed to fill job openings, then the number will be less than one. For example, at present, the ratio for physical therapist assistants is 0.70; this means there will only .7, or less than one, candidate on the system to fill each of the currently advertised jobs.

The largest categories of jobs include 17 in health science, seven in architecture and construction, and five each in agriculture, food, and natural resources; manufacturing; science, technology, engineering, and math (STEM), and transportation.

Further information on job requirements can be found on jobs4tn.gov in the Occupational Profile section. Jobs excluded from the list included those which required a bachelor's degree or more, had no current openings on jobs4tn.gov, had annual wages less than \$29,393, or were not expected to be in demand in the long term.

The number of average annual openings by occupation projected from 2016 to 2026 is in most cases considerably larger than previous estimates of annual average openings for these occupations. This is due to the newly-developed separations methodology by the U.S. Department of Labor, Bureau of Labor Statistics. It includes greater numbers of annual job openings due to individuals transferring out of occupations earlier in their careers. See the appendix for additional information.

Table 9: Middle Skills Occupations

Selected Occupations	2017 Average Annual Open- ings	Occupation Candidate/ Jobs Ratio (9-14-2018)	2017 Median Annual Wage	TN DOE Industry Certifica- tions
Agriculture, Food, and Natural Resources				
Biological Technicians	195	2.70	\$39,080	
First Line Supervisors of Lawn and Garden Workers	2,645	1.27	\$41,420	
Pesticide Handlers	2,615	0.07	\$32,160	C
Pump Operators, Except Wellhead	180	0.33	\$39,280	
Veterinary Technologists and Technicians	1,640	0.48	\$31,130	C
Architecture and Construction				
Cement Masons and Concrete Finishers	750	1.71	\$36,360	
Civil Engineering Technicians	1,070	2.63	\$30,830	
Construction Carpenters	1,040	2.82	\$30,600	C
Electricians	2,890	0.72	\$46,500	C
Heating and Air Conditioning Mechanics	1,080	0.38	\$42,160	C
Operating Engineers and Other Construction Equipment Operators	4,745	0.85	\$37,920	
Plumbers and Pipefitters	1,215	0.12	\$46,920	C
Arts and Communications				
Printing Press Operators	1,140	1.33	\$34,770	
Business Management and Administration				
Customer Service Representatives	23,310	1.63	\$30,720	
First Line Supervisors of Office and Administrative Support Workers	3,960	0.48	\$50,600	C
Payroll and Timekeeping Clerks	690	1.00	\$41,640	
Government and Public Administration				
Eligibility Interviewers, Government Programs	295	6.70	\$36,740	
Transportation Inspectors	580	5.50	\$74,580	
Health Science				
Cardiovascular Technologists and Technicians	75	0.06	\$41,950	C
Chiropractors	25	0.80	\$89,630	
Dental Assistants	820	0.78	\$36,380	
Diagnostic Medical Sonographers	155	0.09	\$62,210	
Massage Therapists	190	0.16	\$41,080	
Medical and Clinical Lab Technicians	620	1.04	n/a	
Medical Assistants	2,720	1.17	\$30,340	C
Medical Records Technologists	480	1.51	\$38,610	
Nuclear Medicine Technologists	45	0.06	\$65,530	
Occupational Safety and Health Technicians	190	1.88	\$48,290	
Occupational Therapist Assistants	160	0.12	\$61,190	
Opticians, Dispensing	160	2.14	\$36,920	

Table 9 Continued

Pharmacy Technicians	1,275	0.48	\$29,880	C
Physical Therapist Assistants	475	0.70	\$58,080	
Practical Nurse	2,245	0.23	\$38,060	
Radiologic Technologists	430	0.17	\$50,020	
Respiratory Therapists	295	0.45	\$50,010	
Hospitality and Tourism				
Fitness Trainers and Aerobics Instructors	2,915	0.24	\$39,190	C
Lodging Managers	1,870	0.44	\$42,830	
Human Services				
Morticians, Undertakers, Funeral Directors	405	0.75	\$46,200	
Social and Human Services Assistants	3,795	1.78	\$32,140	C
Information Technology				
Computer Network Support Specialists	1,220	7.17	\$55,280	C
Public Safety, Corrections, and Security				
Correctional Officers	855	4.10	\$31,970	
Firefighters (Municipal)	585	8.00	\$38,460	
Paralegals and Legal Assistants	625	1.71	\$46,730	
Manufacturing				
Cost Estimators	200	0.48	\$59,010	
Dental Laboratory Technicians	65	4.50	\$33,020	
Machinist	860	0.89	\$40,460	C
Maintenance and Repair Workers, General	9,125	2.17	\$36,460	
Team Assemblers	14,325	7.14	n/a	
Telecommunications Installers and Repairers	1,220	3.05	\$46,460	
Sales				
Production, Planning, Expediting Clerks	2,265	0.63	\$44,350	
Sales Representatives, Wholesale and Manufacturing, Except Technical	14,025	3.32	\$50,630	
Science, Technology, Engineering, and Math				
Chemical Technicians	160	5.00	\$46,290	
Environmental Science and Protection Technicians	275	1.82	\$45,300	
Mechanical Engineering Technicians	130	1.05	\$52,100	C
Nuclear Technicians	30	5.50	\$76,970	
Surveying and Mapping Technicians	285	0.60	\$42,660	
Transportation				
Automotive Service Technicians	2,160	2.55	\$38,180	C
Commercial Pilots	205	0.24	\$70,080	
Heavy and Tractor-Trailer Truck Drivers	8,810	0.25	\$39,640	
Mobile Heavy Equipment Mechanics	380	0.21	\$44,420	
Outdoor Power Equipment Mechanics	235	0.50	\$30,040	

Sources: TN Dept of Labor and Workforce Development, LMI Section, 2016-26 Employment Projections and 2017 OES Wages; Jobs4tn.gov Candidate/Supply Ratios; TN Dept of Education, Career and Technical Education Div.



Occupational Injuries, Illnesses and Fatalities in Tennessee during 2016

The Labor Research and Statistics Division is part of the Labor Market Information and WIR²ED Division of the Tennessee Department of Labor and Workforce Development. They conduct the annual Survey of Occupational Injuries and Illnesses (SOII) from a random sample of public and private sector companies in Tennessee as well as the Census of Fatal Occupational Injuries (CFOI).

The data collected from the SOII survey is used to produce the occupational injury and illness rates for industries within the State of Tennessee as well as providing demographic and case characteristic data for work-related injuries and illnesses that result in days away from work or days of job transfer or restriction. The calculated rates represent the number of recordable occupational injuries and illnesses per 100 full-time equivalent employees. The survey is conducted in conjunction with the Bureau of Labor Statistics, U.S. Department of Labor.

Additional information can be found at <https://www.tn.gov/workforce/generalresources/major-publications0/major-publicationsredirect/public-reports-redirect/occupational-injuries--illnesses--and-fatalities-statistics.html> or <https://www.bls.gov/iif/oshstate.htm#TN>.

Tennessee Survey of Occupational Injuries and Illnesses (SOII), 2016

The total recordable incidence rate for all industries in Tennessee per 100 full-time equivalent workers during 2016 was estimated to be 3.0. The total recordable rate for private industry was 2.9 and the total recordable rate for public sector industries was 3.9.

Key findings from the Tennessee Survey of Occupational Injuries and Illnesses, 2016

- The highest total recordable case rate in private industry was in the major industry sector of transportation and warehousing at 4.7.
- The lowest total recordable case rate in private industry was in the major industry sector of finance, insurance and real estate at 0.7.
- There were an estimated 19,110 occupational injuries and illnesses in Tennessee including all ownerships during 2016 that resulted in lost days away from work.
- 62 percent of the occupational injuries and illnesses in Tennessee involving days away from work were sustained by men, while 38 percent were sustained by women.
- 40 percent of the occupational injuries and illnesses in Tennessee involving days away from work were the result of a sprain, strain or tear to a ligament or tendon.
- 33 percent of the occupational injuries and illnesses in Tennessee involving days away from work were due to overexertion or bodily reactions. An additional 27 percent were due to slips, trips and falls.
- In 30 percent of the occupational injuries and illnesses resulting in days away from work the injured employee suffered an injury to the upper extremities. In 28 percent of the cases the injury was to the lower extremities and in 22 percent of the cases the injury was to the trunk.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, October 30, 2017.

Table 10: Number of nonfatal occupational injuries and illnesses involving days away from work¹ by major occupational group and selected worker occupations, all ownerships, Tennessee, 2016

Occupation	All ownerships ²
Total	19,110
Management occupations	310
Business and financial operations occupations	80
Architecture and engineering occupations	30
Community and social service occupations	110
Education, training, and library occupations	420
Arts, design, entertainment, sports and media occupations	210
Healthcare practitioners and technical occupations	990
Registered nurses	300
Emergency medical technicians and paramedics	210
Licensed practical nurses	160
Healthcare support occupations	880
Nursing assistants	550
Medical assistants	80
Protective service occupations	1,270
Police and sheriff's patrol officers	380
Firefighters	190
Correctional officers and jailers	240
Security guards	240
Food preparation and serving related occupations	1,290
Combined food preparation and serving workers, incl. fast food	220
Waiters and waitresses	130
Food preparation workers	300
Cooks, restaurant	160
Building and grounds cleaning and maintenance occupations	800
Janitors and cleaners, except maids and housekeeping cleaners	260
Landscaping and groundskeeping workers	140
Maids and housekeeping cleaners	210
Personal care and service occupations	450
Personal care aides	340
Sales and related occupations	1,010
Retail salespersons	400
First-line supervisors of retail sales persons	320
Office and administrative support occupations	1,340
Stock clerks and order fillers	650
Hotel, motel, and resort desk clerks	30
Farming, fishing and forestry occupations	30

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to totals. SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating State agencies, October 30, 2017.

**Incidence rates of nonfatal occupational injuries and illnesses
by select industry sectors
Tennessee, private industry, 2014-2016**

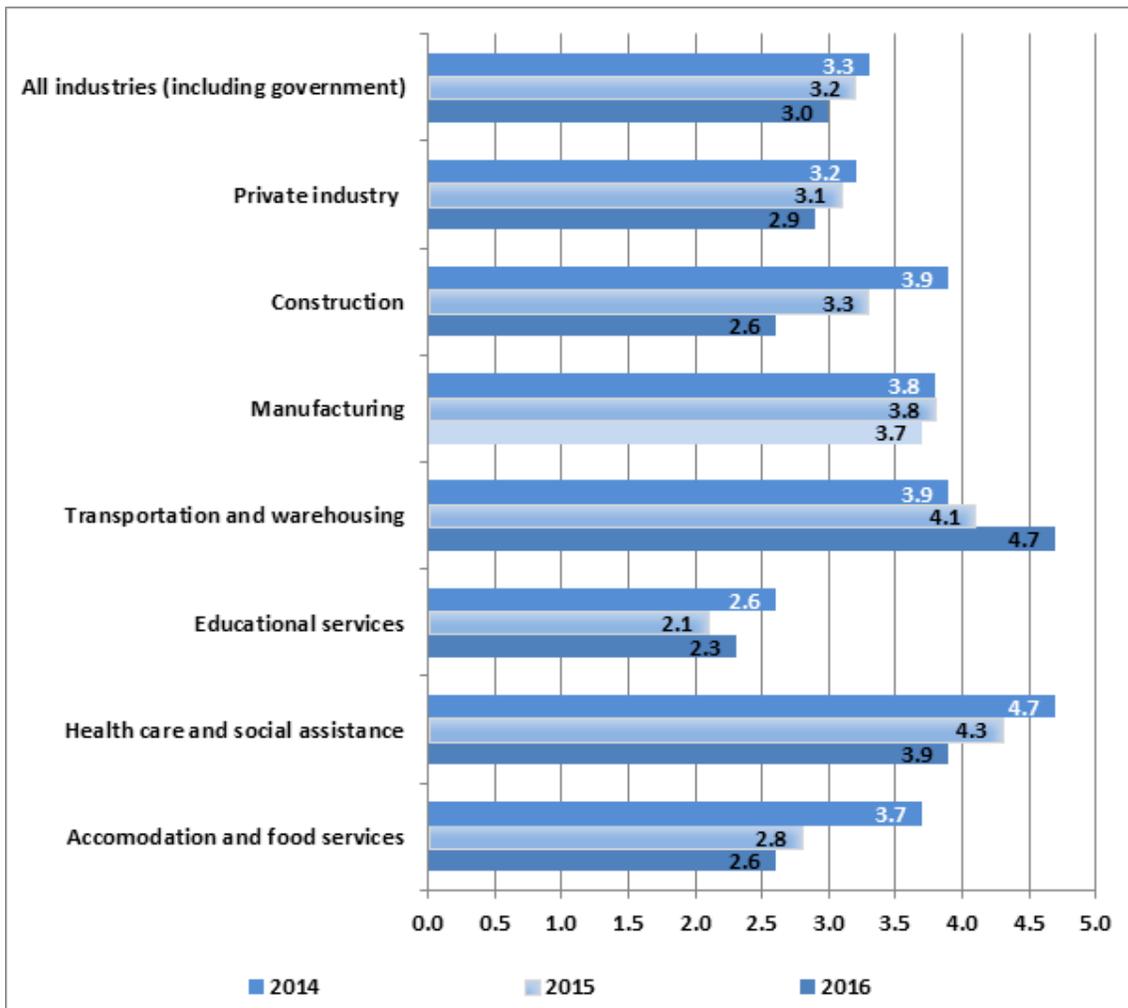


Figure 10

The major industry sector consisting of transportation and warehousing had the highest incidence rate for any private sector industry in Tennessee during 2016 with a recordable incidence rate of 4.7 per 100 full-time equivalent workers. The major industry sector of educational services had the lowest incidence rate with a recordable rate of 2.3 per 100 full-time equivalent workers.

NOTE: Because of rounding and data exclusion on non-classifiable responses, data may not sum to the totals.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, October 30, 2017.

Tennessee Census of Fatal Occupational Injuries (CFOI), 2016

There were 122 fatal work-related injuries in Tennessee during 2016, an increase of 9 percent over the 112 recorded during 2015.

Key findings of the 2016 Census of Fatal Occupational Injuries:

- There were 94 fatal work injuries to wage and salary workers and 28 to self-employed persons
- There were 115 fatal work injuries to men and 7 fatal work injuries to women.
- There were 112 fatal work injuries in the private sector and 10 to government workers.
- Fatal work-related injuries due to transportation incidents decreased 11 percent from 2015 to 2016 while fatal work-related incidents of violence increased by 73 percent.
- Fatal occupational injuries due to contact with objects and equipment increased 24 percent from 2015 to 2016, while exposure related deaths decreased 50 percent.
- There were 91 fatal work-related injuries to White (non-Hispanic) workers, 19 to Black or African-American (non-Hispanic) workers and 11 to Hispanic or Latino workers.
- The highest number of fatal occupational injuries occurred to workers in the major occupational group of construction and extraction occupations with 28 work fatalities.
- The range of workers between the ages of 55 to 64 suffered the most fatal work injuries in Tennessee during 2016 with 30 or 25 percent of the yearly total number of work fatalities.

Table 11: Fatal work-related injuries by event or exposure

Tennessee, 2013 – 2016

Event or exposure	2016	2015	2014	2013
Transportation incidents	42	47	59	41
Violence and other injuries by persons or animals	26	15	15	15
Contact with objects and equipment	26	21	16	18
Falls, slips, trips	20	17	23	12
Exposure to harmful substances or environments	6	12	9	8
Fires and explosions	2	--	5	--
Yearly Totals	122	112	127	95

NOTE: Totals for major categories may not sum to yearly totals. Dashes indicate no data or data that do not meet publication criteria

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, Census of Fatal Occupational Injuries, December 16, 2017.

Workforce and Labor Force Issues in Tennessee's Regions

Population in Tennessee in 2017 was estimated at 6,715,984, an increase of 1 percent over 2016. This is a slightly faster rate of growth than in the previous year. All three regions increased in population: the Middle Region added an estimated 46,333 people, with the East adding 20,169 and the West adding an estimated 78 people. This was in contrast to the declining population exhibited by the West Region in the previous year.

Average unemployment rates declined in all areas, for a state average of 3.7 percent, the lowest rate in the last 20 years. The West Region continues to have the highest unemployment rate, 0.7 percentage points above the state rate. The lowest educational attainment (attainment of some college or more for those 25 years of age or higher) continues to be in the East, with a rate of 50.8 percent compared to the state rate of 53 percent. However, all areas gained slightly, with the Middle Region gaining the most at .9 percent and achieving a rate of more than 55 percent.

Detailed information on educational attainment by category is shown in the next table. At the state level, the percentages of the population 25 years old and over who have only been educated through the 9th grade level, those attending high school but not receiving a diploma, and those only completing a high school program have decreased slightly, while the percentages of those achieving some college education, an associate's degree, a bachelor's degree, or a graduate degree or professional degree have increased. Compared to the state average educational attainment, the West Region had a higher percentage of individuals with some college; the East had a higher percent of individuals who had attained associate's degrees; and the Middle Region had greater percentages of individuals who achieved bachelor's and graduate or professional degrees.

Poverty rates decreased slightly; the state rate decreased 0.4 percent to 17.2 percent. Likewise, the percentage of the unemployed with a disability decreased slightly across the regions and at the state level; the percent of those not in the labor force with a disability was constant at 34.4 percent. The East Region had the greatest number and percent of individuals who were unemployed with a disability, besting the average state rate by 3.1 percent.

Youth unemployment for those ages 16 to 24 topped 13 percent in all three regions; the West continued to have the highest youth unemployment rate at 20.68 percent. On a positive note, the number of youth in the labor force increased in the East and Middle Regions, while the number of those unemployed decreased; both regions had decreasing youth unemployment rates. In the West, by contrast, while the unemployment rate decreased over the year, the youth labor force decreased and the number of unemployed increased.

Table 12: Regional Labor Force Data

	East Region	Middle Region	West Region	State Total
Population 2016	2415339	2672839	1561226	6649404
Population 2017	2435508	2719172	1561304	6715984
Amount of Change	20169	46333	78	66580
Percent Change	0.84%	1.73%	0.00%	1.00%
Annual Average Unemployment Rate 2016 Percent	4.9	4.1	5.6%	4.7%
Annual Average Unemployment Rate 2017 Percent	3.9	3.2	4.4%	3.7%
Educational Attainment 25 Years and Over (2016) Some College Or Higher - Percent	50.8%	55.7%	53.0%	53.0%
Poverty Estimate, All Ages, Percent (2016)	17.5%	15.0%	20.6%	17.2%
Percentage of Unemployed with a Disability	15.4%	12.3%	11.5%	13.2%
Percent of Those Not in the Labor Force with a Disability (2016)	34.3%	31.5%	33.3%	34.3%

Table 13: Educational Attainment by Area, 2016

Educational Attainment	East	%	Middle	%	West	%	State	%
Population 25 years and over	1,668,555	X	1,725,927	X	1,032,858	X	4,427,340	X
Less than 9th grade	100,397	6.0%	84,809	4.9%	52,457	5.1%	237,663	5.4%
9th to 12th grade, no diploma	149,136	8.9%	135,616	7.9%	98,133	9.5%	382,885	8.6%
High school graduate (includes equivalency)	572,051	34.3%	544,904	31.6%	334,647	32.4%	1,451,602	32.8%
Some college, no degree	343,283	20.6%	357,461	20.7%	230,349	22.3%	931,093	21.0%
Associate's degree	122,075	7.3%	116,141	6.7%	63,465	6.1%	301,681	6.8%
Bachelor's degree	237,678	14.2%	316,899	18.4%	158,204	15.3%	712,781	16.1%
Graduate or professional degree	143,935	8.6%	170,097	9.9%	95,603	9.3%	409,635	9.3%

Table 14: Disability Status of Those in the Labor Force

Area	Civilian Non-institutional Population	Total Labor force	Total Employed	Employed W disability	Employed W/O Disability	Total Unemployed	Unemployed W disability	Unemployed W/O Disability
East	1,447,303	1,045,308	967,222	63,721	903,501	78,086	12,060	66,026
Middle	1,602,518	1,222,741	1,145,639	65,232	1,080,407	77,102	9,519	67,583
West	947,658	703,596	638,080	36,008	602,072	65,516	7,555	57,961
Tennessee	3,997,479	2,971,645	2,750,941	164,961	2,585,980	220,704	29,134	191,570

Table 15: Disability Status of Those Not in the Labor Force

Area	Civilian Non-institutional Population	Total Not In Labor force	Employed W disability	Employed W/O Disability	% W Disability	% W/O Disability
East	1,447,303	401,995	150,544	251,451	37.4%	62.6%
Middle	1,602,518	379,777	119,650	260,127	31.5%	68.5%
West	947,658	244,062	81,284	162,778	33.3%	66.7%
Tennessee	3,997,479	1,025,834	351,478	674,356	34.3%	65.7%

Table 16: Youth Employment, Ages 16-24

Area	Labor Force	Unemployment	Rate
East Region	168,629	24,724	14.66%
Middle Region	193,632	26,990	13.94%
West Region	111,956	23,150	20.68%

Source: American Community Survey, 2016, 5-year estimates

County Population and Per Capita Income within Regions

According to the U.S. Bureau of Economic Analysis the 2016 Tennessee the per capita personal income was \$43,326, up 2.8 percent from the previous year. The United States per capita personal income was \$49,246 up 1.6 percent from 2015.

Per capita personal income is defined as the annual total personal income of residents divided by the residential population as of July 1. Personal income is derived by summing the net earnings, rental income, personal dividend/interest income, and transfer payments by place of residence. Personal income excludes federal income tax deductions and other personal taxes and is reported in current dollars. In simpler terms, it is the total income on the front page of your 1040 tax form. This data can be influenced by large growth (or decline) in population, natural disasters (i.e., flooding or hurricanes), commuting populations (those that primarily work in other counties), and state and local taxes.

In 2016, all the counties with the highest per capita incomes across the state were in metropolitan statistical areas (MSAs). In the East Region, the counties with the highest per capita personal incomes were Hamilton (\$48,053) in the Chattanooga, TN-Georgia MSA and Knox (\$46,305) and Loudon (\$43,868) in the Knoxville MSA. In the Middle Region, four counties in the Nashville-Murfreesboro MSA were among the highest income counties in the state: Williamson (\$90,979), Davidson (\$58,283), Sumner (\$43,951), and Wilson (\$43,650). In the West Region, Fayette (\$50,209) and Shelby (\$46,234) counties in the Memphis, TN-MS-AR MSA were among the state's highest.

Except for two counties (Union, \$26,104) in the Knoxville MSA and Hickman (\$26,982) in the Nashville-Murfreesboro MSA), the rest of the lowest per capita income counties are rural. They include, in the East, Bledsoe (\$21,432), Hancock (\$23,104) and Scott (\$26,374). In the Middle Region, were Wayne (\$26,492) and Van Buren (\$26,648). Counties in the West included Lauderdale (\$25,468) and Lake (\$23,582).

From 2016 to 2017, five counties in Tennessee decreased population by more than 100. All in the West Region, they included Dyer, Haywood, Obion, Shelby, and Weakley. In contrast, the counties gaining more than an estimated 5,000 people included Knox County in the Knoxville MSA, Montgomery in the Clarksville, TN-KY MSA, and Rutherford and Williamson counties in the Nashville- Murfreesboro MSA.

Table 17: Population and Per Capita Income by County

	Population Estimate , as of July 1			Per Capita Personal Income			PCI Rank in State	Per Capita Income % Change	PCI Change Rank in State	Region
County	2015	2016	2017	2014	2015	2016	2015	2015-16	2016	
United States	321,039,839	323,405,935	325,719,178	46,494	48,451	49,246	--	1.6	--	--
Tennessee	6,590,726	6,649,404	6,715,984	40,128	42,128	43,326	--	2.8	--	--
Anderson	75,459	75,585	76,257	36,924	38,074	39,225	15	3.0	23	East
Bledsoe	14,483	14,599	14,717	19,950	20,540	20,353	95	-0.9	93	East
Blount	126,832	128,244	129,929	36,491	38,282	39,226	14	2.5	41	East
Bradley	103,802	104,407	105,560	35,816	37,264	37,941	25	1.8	63	East
Campbell	39,687	39,671	39,648	29,560	31,288	32,077	62	2.5	37	East
Carter	56,366	56,458	56,488	30,276	31,395	31,973	66	1.8	62	East
Claiborne	31,517	31,561	31,609	29,954	31,240	32,048	63	2.6	34	East
Cocke	35,068	35,160	35,556	27,951	29,390	29,976	81	2.0	57	East
Cumberland	58,122	58,532	59,078	32,806	33,848	34,828	46	2.9	26	East
Grainger	22,851	23,112	23,144	28,370	30,001	30,538	74	1.8	64	East
Greene	68,500	68,559	68,808	35,790	37,523	38,067	23	1.4	74	East
Hamblen	63,384	63,717	64,277	33,188	34,579	35,780	40	3.5	15	East
Hamilton	353,748	358,061	361,613	44,883	47,107	48,053	4	2.0	55	East
Hancock	6,579	6,597	6,600	23,031	23,898	24,256	93	1.5	72	East
Hawkins	56,242	56,366	56,459	30,327	31,498	32,030	64	1.7	67	East
Jefferson	52,987	53,157	53,804	30,827	32,026	32,936	59	2.8	29	East
Johnson	17,835	17,777	17,691	28,561	30,706	32,024	65	4.3	7	East
Knox	451,321	456,114	461,860	42,912	44,932	46,305	5	3.1	22	East
Loudon	50,852	51,275	52,152	41,231	42,882	43,868	9	2.3	44	East
McMinn	52,439	52,659	52,877	31,858	33,106	33,942	54	2.5	36	East
Marion	28,376	28,321	28,425	33,358	34,423	35,307	43	2.6	35	East
Meigs	11,785	11,948	12,068	29,782	30,412	30,712	72	1.0	82	East
Monroe	45,693	45,967	46,240	28,860	30,541	31,512	70	3.2	19	East
Morgan	21,487	21,724	21,636	25,728	27,385	27,978	88	2.2	50	East
Polk	16,763	16,770	16,757	30,584	31,645	32,101	61	1.4	75	East
Rhea	32,320	32,392	32,691	31,258	32,892	33,551	56	2.0	56	East
Roane	52,748	52,913	53,036	35,852	37,163	38,234	19	2.9	27	East
Scott	21,881	21,892	21,989	26,420	27,033	27,435	90	1.5	73	East
Sequatchie	14,631	14,740	14,736	32,441	33,859	34,671	47	2.4	42	East
Sevier	95,502	96,609	97,638	33,411	35,071	36,285	36	3.5	16	East
Sullivan	156,318	156,335	157,158	37,474	38,608	39,345	13	1.9	58	East
Unicoi	17,779	17,665	17,759	33,462	34,922	35,499	42	1.7	68	East
Union	19,161	19,232	19,442	27,390	28,439	29,283	84	3.0	25	East
Washington	126,072	127,220	127,806	37,493	39,277	39,909	11	1.6	69	East
Bedford	46,892	47,420	48,117	33,250	33,714	34,069	52	1.1	81	Middle
Cannon	13,754	13,907	14,216	31,838	33,076	33,597	55	1.6	71	Middle
Cheatham	39,571	39,728	40,330	36,016	38,105	39,469	12	3.6	12	Middle

Table 17 Continued

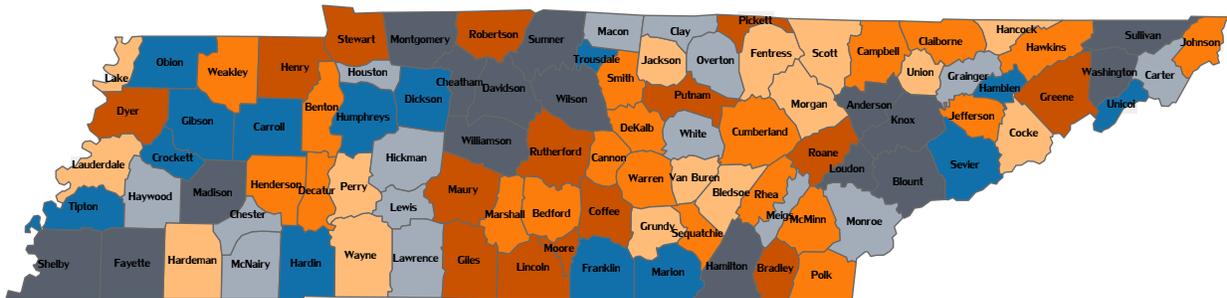
Clay	7,683	7,688	7,703	30,698	31,037	31,434	71	1.3	77	Middle
Coffee	54,094	54,428	55,034	35,294	36,613	37,307	29	1.9	61	Middle
Davidson	681,285	688,901	691,243	51,179	56,064	58,283	2	4.0	9	Middle
DeKalb	19,274	19,442	19,852	31,548	33,706	34,346	50	1.9	60	Middle
Dickson	51,327	51,922	52,853	34,078	35,535	36,490	34	2.7	32	Middle
Fentress	17,860	17,955	18,136	28,715	29,287	29,676	82	1.3	76	Middle
Franklin	41,324	41,567	41,652	34,385	35,802	36,366	35	1.6	70	Middle
Giles	28,950	29,140	29,401	34,234	36,014	37,303	30	3.6	13	Middle
Grundy	13,334	13,279	13,361	27,537	28,688	29,275	85	2.0	54	Middle
Hickman	24,366	24,649	24,864	27,613	29,114	30,069	79	3.3	18	Middle
Houston	8,122	8,118	8,213	30,791	31,815	31,806	68	0.0	89	Middle
Humphreys	18,146	18,381	18,484	34,230	36,019	36,179	38	0.4	87	Middle
Jackson	11,523	11,602	11,677	27,310	27,919	28,273	87	1.3	78	Middle
Lawrence	42,449	42,979	43,396	30,401	31,511	31,868	67	1.1	80	Middle
Lewis	11,883	11,912	12,035	28,002	29,273	30,567	73	4.4	5	Middle
Lincoln	33,554	33,528	33,751	36,157	37,422	37,660	26	0.6	86	Middle
Macon	23,120	23,455	24,079	29,500	30,579	30,401	76	-0.6	91	Middle
Marshall	31,543	31,973	32,931	32,042	33,487	34,075	51	1.8	65	Middle
Maury	87,390	89,588	92,163	36,234	37,398	38,207	20	2.2	51	Middle
Montgomery	192,542	194,795	200,182	38,439	39,279	39,176	16	-0.3	90	Middle
Moore	6,256	6,293	6,384	36,911	37,769	37,415	28	-0.9	94	Middle
Overton	22,067	21,978	22,012	28,826	29,634	30,197	78	1.9	59	Middle
Perry	7,848	7,892	7,975	27,689	28,668	29,390	83	2.5	38	Middle
Pickett	5,126	5,085	5,073	32,378	35,902	37,567	27	4.6	3	Middle
Putnam	75,098	76,123	77,674	34,685	36,254	37,218	31	2.7	33	Middle
Robertson	68,429	69,177	70,177	35,910	37,261	38,033	24	2.1	53	Middle
Rutherford	297,920	307,683	317,157	35,909	37,249	38,098	22	2.3	46	Middle
Smith	19,228	19,466	19,636	33,731	34,580	34,653	48	0.2	88	Middle
Stewart	13,198	13,174	13,355	36,629	38,212	38,469	18	0.7	85	Middle
Sumner	175,193	179,108	183,545	41,052	42,967	43,951	8	2.3	45	Middle
Trousdale	8,040	9,950	10,083	32,821	34,921	35,177	45	0.7	84	Middle
Van Buren	5,692	5,716	5,742	25,205	26,683	27,268	91	2.2	49	Middle
Warren	40,206	40,400	40,651	31,182	31,927	32,930	60	3.1	21	Middle
Wayne	16,677	16,665	16,583	26,977	28,014	27,520	89	-1.8	95	Middle
White	26,362	26,451	26,753	29,966	31,017	31,752	69	2.4	43	Middle
Williamson	211,456	218,888	226,257	81,744	87,506	90,979	1	4.0	8	Middle
Wilson	128,434	132,433	136,442	41,228	43,476	44,650	7	2.7	31	Middle
Benton	16,192	16,059	15,986	32,131	33,191	34,013	53	2.5	40	West
Carroll	27,953	27,924	27,860	33,033	34,297	35,275	44	2.9	28	West
Chester	17,083	17,102	17,119	28,527	29,621	30,506	75	3.0	24	West
Crockett	14,578	14,467	14,473	34,467	34,931	35,543	41	1.8	66	West
Decatur	11,600	11,711	11,751	32,787	33,988	34,411	49	1.2	79	West
Dyer	37,782	37,605	37,463	36,673	37,363	38,195	21	2.2	48	West
Fayette	39,218	39,575	40,036	45,921	48,679	50,209	3	3.1	20	West
Gibson	49,196	49,103	49,111	34,729	35,716	36,898	32	3.3	17	West
Hardeman	25,783	25,476	25,447	26,398	27,275	28,296	86	3.7	10	West
Hardin	25,741	25,759	25,846	33,412	34,159	36,150	39	5.8	2	West

Table 17 Continued

Haywood	17,973	17,803	17,573	28,670	28,470	30,274	77	6.3	1	West
Henderson	27,964	27,793	27,751	31,720	32,073	33,476	58	4.4	6	West
Henry	32,145	32,245	32,450	36,558	37,654	38,593	17	2.5	39	West
Lake	7,574	7,530	7,468	23,887	24,087	23,894	94	-0.8	92	West
Lauderdale	26,940	25,350	25,274	25,641	26,405	26,994	92	2.2	47	West
McNairy	25,860	25,810	26,004	28,193	28,931	30,003	80	3.7	11	West
Madison	97,523	97,514	97,643	36,158	38,359	40,101	10	4.5	4	West
Obion	30,559	30,526	30,385	35,380	36,375	36,729	33	1.0	83	West
Shelby	937,885	937,130	936,961	43,639	44,978	46,234	6	2.8	30	West
Tipton	61,525	61,176	61,366	33,663	34,942	36,192	37	3.6	14	West
Weakley	33,846	33,568	33,337	32,227	32,799	33,491	57	2.1	52	West

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

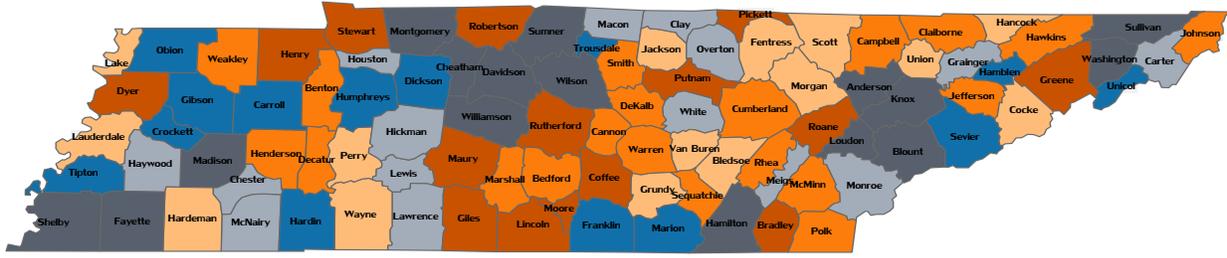
2016 Per Capita Income By Counties



Low	20,000	30,000	32,000	35,000	37,000	39,000
High	29,999	31,999	34,999	36,999	38,999	100,000

Figure 11

2017 Annual Average Unemployment Rates By County



Low	20,000	30,000	32,000	35,000	37,000	39,000
High	29,999	31,999	34,999	36,999	38,999	100,000

Figure 12

All 2017 Unemployment Claims by Major Occupational Group

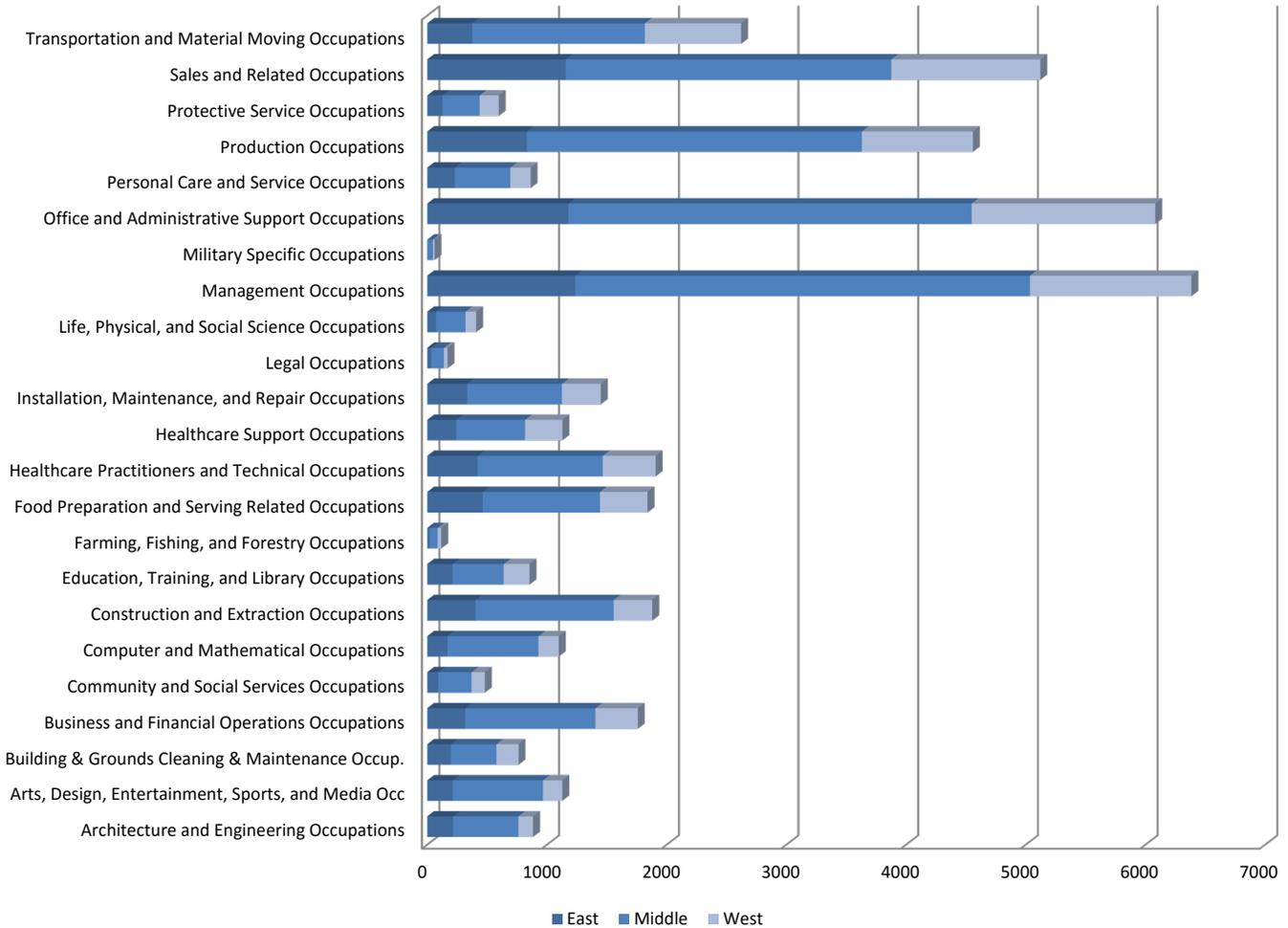
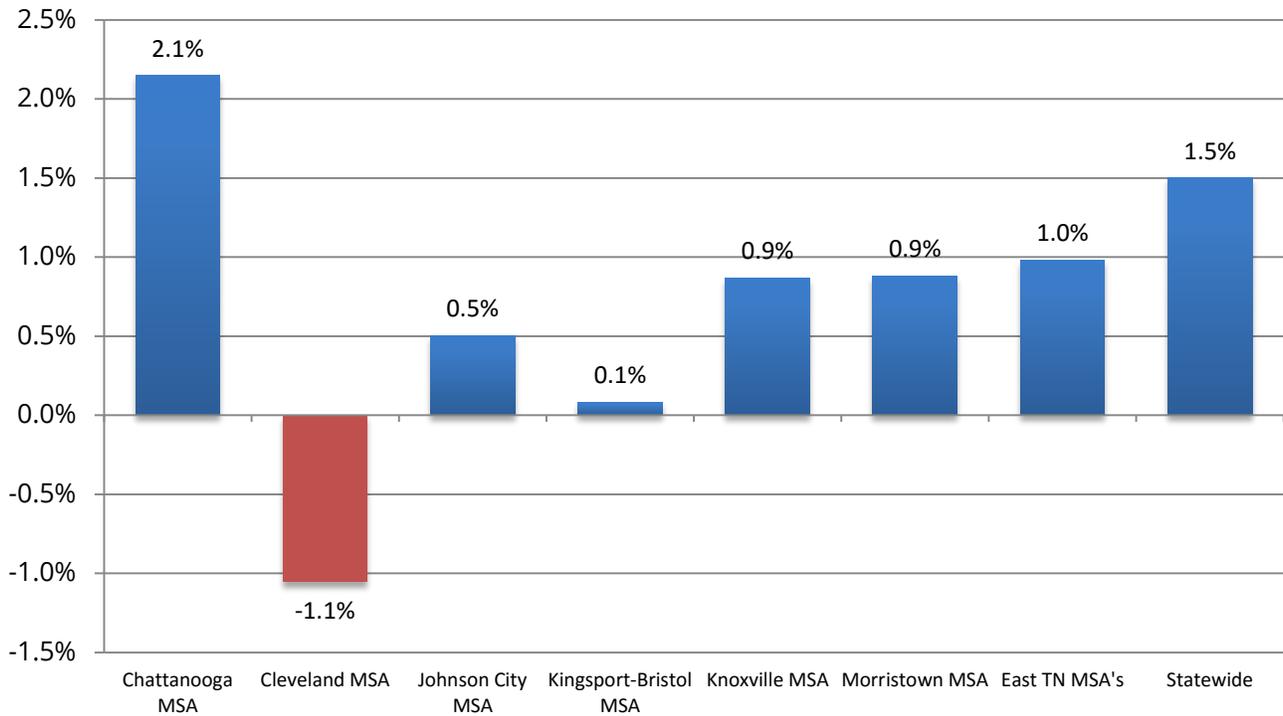


Figure 13

Detailed Regional Analysis

East Region

East TN MSA Job Growth 2016-2017



Source: TN Department of Labor & Workforce Development, Current Employment Statistics

Figure 14

The 95 counties of Tennessee have been divided into East, Middle, and West Regions. The counties included in these regions can be found on pages 33-35.

East Region

The East Tennessee Region has the most Metropolitan Statistical Areas (six) of the three regions (see graph), possibly due to its mountainous geography. The area also had the greatest variation in growth rates from 2016 to 2017 among the MSAs, from -1.1 percent in the Cleveland MSA to 2.1 percent growth in the Chattanooga MSA. Except for Chattanooga, all MSAs had average employment growth rates below the state average of 1.5 percent.

In 2017, its unemployment rate was 3.9 percent, slightly above the state average. The percentage of adults over 25 with some college education was the lowest of the three regions. It had the highest percent of unemployed with a disability, as well as the highest percent of individuals with a disability who were not in the labor force. The poverty estimate was the second highest in the state and above the state average rate.

Of the 27 counties in the metropolitan and micropolitan areas in the East Region, in 2017, five were at or below the state average unemployment rate: Hamilton (Chattanooga MSA), Bradley (Cleveland MSA), and Blount, Knox, and Loudon in the Knoxville MSA. All counties, however, had lower unemployment rates in 2017 than 2016. The greatest decrease in an unemployment rate from 2016 to 2017 was in Campbell County in the Knoxville MSA; two other counties in that MSA, Morgan and Union, also had significant decreases. Jefferson (Morristown MSA) and Marion (Chattanooga MSA) also decreased unemployment rates over the year by 1.3 percent or more.

Table 18: Top 10 East Region Subsector Industries by Employment

Region	Industry	NAICS Description	# of Establ	East Region Ranking	Avg Monthly Emp	Total Wages \$	Avg Ann Wage \$
East	722	Food Services and Drinking Places	4,128	1	95,366	1,591,640,642	16,690
East	611	Educational Services	573	2	78,493	3,212,441,424	40,926
East	561	Administrative and Support Services	2,479	3	66,480	2,085,655,645	31,373
East	621	Ambulatory Health Care Services	3,858	4	54,249	3,483,368,966	64,211
East	622	Hospitals	78	5	45,815	2,323,349,933	50,712
East	541	Professional, Scientific, and Technical Services	5,068	6	39,263	2,926,369,967	74,533
East	921	Executive, Legislative, and Other General Government Support	202	7	26,545	1,136,361,937	42,809
East	452	General Merchandise Stores	656	8	26,373	609,941,690	23,128
East	336	Transportation Equipment Manufacturing	158	9	26,140	1,469,979,007	56,235
East	238	Specialty Trade Contractors	2,429	10	25,627	1,238,396,535	48,324

Table 19: Top 10 East Region Subsector Industries by Total Wages

Region	Industry	NAICS Description	# of Establ	East Region Ranking	Avg Monthly Emp	Total Wages \$	Avg Ann Wage \$
East	621	Ambulatory Health Care Services	3,858	1	54,249	3,483,368,966	64,211
East	611	Educational Services	573	2	78,493	3,212,441,424	40,926
East	541	Professional, Scientific, and Technical Services	5,068	3	39,263	2,926,369,967	74,533
East	622	Hospitals	78	4	45,815	2,323,349,933	50,712
East	561	Administrative and Support Services	2,479	5	66,480	2,085,655,645	31,373
East	722	Food Services and Drinking Places	4,128	6	95,366	1,591,640,642	16,690
East	336	Transportation Equipment Manufacturing	158	7	26,140	1,469,979,007	56,235
East	551	Management of Companies and Enterprises	387	8	15,201	1,337,164,514	87,966
East	325	Chemical Manufacturing	137	9	14,998	1,284,918,862	85,673
East	238	Specialty Trade Contractors	2,429	10	25,627	1,238,396,535	48,324

Table 20: Top 10 East Region Subsector Industries by Avg Annual Wage

Region	Industry	NAICS Description	# of Establ	East Region Ranking	Avg Monthly Emp	Total Wages \$	Avg Ann Wage \$
East	523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	342	1	1,561	233,371,024	149,501
East	486	Pipeline Transportation	13	2	127	12,809,487	100,862
East	515	Broadcasting (except Internet)	93	3	2,519	235,480,083	93,482
East	221	Utilities	214	4	10,601	935,979,901	88,292
East	334	Computer and Electronic Product Manufacturing	85	5	2,387	210,449,433	88,165
East	551	Management of Companies and Enterprises	387	6	15,201	1,337,164,514	87,966
East	325	Chemical Manufacturing	137	7	14,998	1,284,918,862	85,673
East	518	Data Processing, Hosting, and Related Services	96	8	864	64,739,621	74,930
East	541	Professional, Scientific, and Technical Services	5,068	9	39,263	2,926,369,967	74,533
East	562	Waste management and remediation services	210	10	3873	\$288,133,317	74,395

The top 10 3-digit industries in the East Region by employment are listed in Table 18. These top ten are the same industries that are the top ten in employment for the state, with only two changes in ranks. Eight of the ten sectors also have the greatest total payroll among the East’s detailed industries – however, general merchandise stores and government did not make it into the top ten in terms of total payroll. They were replaced by chemical manufacturing and company headquarters (management of companies and enterprises) . With regard to the top ten industries by annual average wage, the list was quite different, with the top spots being taken by financial services, transportation, utilities, information services, and computer product manufacturing. Several of these industries are projected to be among the fastest growing in the state (waste collection, treatment, and disposal; data processing and hosting, and securities and commodities contracts).

Table 21: East Region Annual Average Unemployment Rates, 2016 to 2017

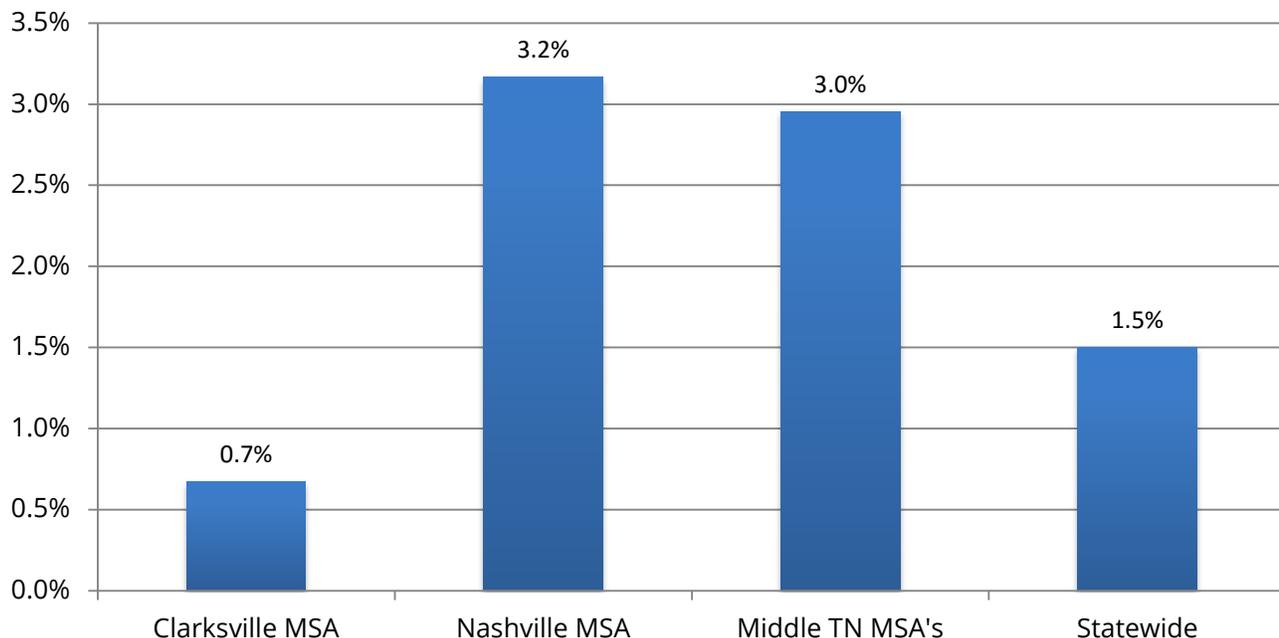
Area	2017 Annual Averages				2016 Annual Averages			
	Labor Force	Employment	Unemployment Number	Unemployment Percent	Labor Force	Employment	Unemployment Number	Unemployment Percent
UNITED STATES	160,320,000	153,337,000	6,982,000	4.4%	159,187,000	151,436,000	7,751,000	4.9%
TENNESSEE	3,198,800	3,080,200	118,600	3.7%	3,134,700	2,987,100	147,700	4.7%
Metropolitan Statistical Areas (MSAs)								
Chattanooga, TN-GA MSA	266,900	256,500	10,400	3.9%	260,000	247,400	12,600	4.9%
Hamilton County	176,550	170,150	6,400	3.6%	171,920	164,030	7,900	4.6%
Marion County	12,180	11,590	590	4.8%	11,920	11,170	750	6.3%
Sequatchie County	6,090	5,790	300	4.9%	5,920	5,580	350	5.8%
Georgia Portion	72,080	68,970	3,110	4.3%	70,240	66,620	3,600	5.1%
Cleveland, TN MSA	57,500	55,400	2,200	3.8%	57,500	54,900	2,600	4.6%
Bradley County	50,170	48,340	1,840	3.7%	50,130	47,900	2,230	4.4%
Polk County	7,370	7,040	340	4.6%	7,390	6,970	420	5.7%
Johnson City, TN MSA	90,400	86,600	3,700	4.1%	89,400	84,800	4,600	5.2%
Carter County	23,910	22,830	1,090	4.5%	23,670	22,340	1,340	5.6%
Unicoi County	7,040	6,670	380	5.4%	7,010	6,520	500	7.1%
Washington County	59,400	57,150	2,250	3.8%	58,750	55,950	2,800	4.8%
Kingsport-Bristol, TN-VA MSA	137,800	132,200	5,700	4.1%	137,100	130,200	6,900	5.1%
Hawkins County	23,840	22,840	1,000	4.2%	23,710	22,430	1,270	5.4%
Sullivan County	70,190	67,370	2,820	4.0%	69,780	66,180	3,600	5.2%
Virginia Portion	43,770	41,990	1,880	4.3%	43,610	41,590	2,030	4.7%
Knoxville, TN MSA	418,800	404,100	14,700	3.5%	412,500	394,100	18,300	4.4%
Anderson County	34,180	32,840	1,330	3.9%	33,680	32,040	1,640	4.9%
Blount County	61,820	59,670	2,150	3.5%	60,840	58,190	2,650	4.4%
Campbell County	14,830	14,070	760	5.1%	14,730	13,720	1,020	6.9%
Grainger County	9,410	9,010	400	4.2%	9,290	8,780	500	5.4%
Knox County	237,540	230,040	7,500	3.2%	233,710	224,410	9,300	4.0%
Loudon County	22,620	21,800	820	3.6%	22,280	21,250	1,040	4.7%
Morgan County	7,870	7,490	380	4.9%	7,810	7,300	500	6.4%
Roane County	23,150	22,140	1,010	4.4%	22,860	21,600	1,270	5.6%
Union County	7,360	7,040	320	4.4%	7,280	6,860	420	5.8%
Morristown, TN MSA	51,300	49,200	2,100	4.0%	50,500	47,900	2,600	5.2%
Hamblen County	27,310	26,220	1,100	4.0%	26,850	25,480	1,370	5.1%
Jefferson County	23,980	23,020	960	4.0%	23,620	22,370	1,240	5.3%
Micropolitan Statistical Areas (MCSAs)								
Athens (McMinn Co.)	22,820	21,830	990	4.3%	22,760	21,530	1,230	5.4%
Crossville (Cumberland Co.)	23,570	22,490	1,080	4.6%	23,560	22,170	1,390	5.9%
Dayton (Rhea Co.)	13,280	12,420	850	6.4%	13,480	12,520	960	7.1%
Greeneville (Greene Co.)	30,830	29,450	1,380	4.5%	30,880	29,200	1,680	5.4%
Newport (Cocke Co.)	14,620	13,860	760	5.2%	14,450	13,540	910	6.3%
Sevierville (Sevier Co.)	52,300	50,220	2,090	4.0%	51,210	48,690	2,530	4.9%

Source: TN Department of Labor and Workforce Development, WIR²ED Division, Local Area Unemployment Statistics

Detailed Regional Analysis

Middle Region

Middle TN MSA Job Growth 2016-2017



Source: TN Department of Labor & Workforce Development, Current Employment Statistics
Figure 15

Middle Region

There are only two MSAs in the Middle Region as more and more counties are being absorbed into the Nashville MSA. This MSA grew twice as rapidly (3.2percent) as the state as a whole (1.5 percent) in 2016-2017. The Clarksville MSA grew at about half the average rate for the state (see graph).

The Middle Region had the largest population growth over the last year (1.73 percent), an estimated 46,333 individuals , the lowest unemployment rate (3.2 percent), and the highest adult educational attainment (55.7 percent). It also had the lowest poverty rate and percent of those not in the labor force with disabilities. It also has the largest number of individuals unemployed without a disability (67,583). This could be an indication of the need for skills training. It also has the lowest youth unemployment rate, still showing a potential of 26,990 youth in need of employment services, the most in the three regions.

Of the 24 counties in the Middle Tennessee Region in metropolitan or micropolitan areas in 2017, 18 had unemployment rates at or below the state unemployment rate of 3.7 percent. All counties had lower annual average unemployment rates in 2017 than in 2016. The six counties that had the greatest reductions in unemployment were all in micropolitan areas- they included Jackson, Overton, Putnam, Lawrence, and Marshall , which all had lowered unemployment rates by at least 1 percent.

Compared to the state, the professional, scientific, and technical and transportation equipment manufacturing industries ranked higher by employment. By total wages, the professional, scientific, and technical industry ranked first , with hospitals third. New on the list were management of companies and enterprises and insurance carriers.

Table 22: Top 10 Middle Region Subsector Industries by Employment

Region	Industry	NAICS Description	# of Establ	Middle Region Ranking	Avg Monthly Emp	Total Wages \$	Avg Ann Wage \$
Middle	722	Food Services and Drinking Places	4,756	1	106,535	1,969,627,219	18,488
Middle	611	Educational Services	821	2	92,411	4,008,506,477	43,377
Middle	561	Administrative and Support Services	3,507	3	82,565	2,983,637,380	36,137
Middle	541	Professional, Scientific, and Technical Services	7,233	4	66,166	5,392,075,349	81,493
Middle	621	Ambulatory Health Care Services	4,072	5	60,350	3,829,022,271	63,447
Middle	622	Hospitals	80	6	59,084	3,863,519,477	65,390
Middle	336	Transportation Equipment Manufacturing	172	7	43,794	2,767,528,337	63,194
Middle	921	Executive, Legislative, and Other General Government Support	218	8	38,704	1,739,867,188	44,953
Middle	238	Specialty Trade Contractors	3,195	9	33,294	1,819,550,056	54,651
Middle	452	General Merchandise Stores	632	10	28,336	682,292,251	24,079

Table 23 Top 10 Middle Region Subsector Industries by Total Wages

Region	Industry	NAICS Description	# of Establ	Middle Region Ranking	Avg Monthly Emp	Total Wages \$	Avg Ann Wage \$
Middle	541	Professional, Scientific, and Technical Services	7,233	1	66,166	5,392,075,349	81,493
Middle	611	Educational Services	821	2	92,411	4,008,506,477	43,377
Middle	622	Hospitals	80	3	59,084	3,863,519,477	65,390
Middle	621	Ambulatory Health Care Services	4,072	4	60,350	3,829,022,271	63,447
Middle	561	Administrative and Support Services	3,507	5	82,565	2,983,637,380	36,137
Middle	336	Transportation Equipment Manufacturing	172	6	43,794	2,767,528,337	63,194
Middle	551	Management of Companies and Enterprises	541	7	21,582	2,200,207,472	101,946
Middle	722	Food Services and Drinking Places	4,756	8	106,535	1,969,627,219	18,488
Middle	524	Insurance Carriers and Related Activities	1,520	9	23,667	1,882,848,870	79,556
Middle	238	Specialty Trade Contractors	3,195	10	33,294	1,819,550,056	54,651

Table 24: Top 10 Middle Region Subsector Industries by Avg Annual Wage

Region	Industry	NAICS Description	# of Establ	Middle Region Ranking	Avg Monthly Emp	Total Wages \$	Avg Ann Wage \$
Middle	525	Funds, Trusts, and Other Financial Vehicles	35	1	98	17,559,007	179,174
Middle	711	Performing Arts, Spectator Sports, and Related Industries	1,011	2	6,359	970,170,906	152,567
Middle	523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	609	3	4,475	626,779,831	140,063
Middle	324	Petroleum and Coal Products Manufacturing	11	4	143	18,090,978	126,510
Middle	486	Pipeline Transportation	27	5	163	19,453,270	119,345
Middle	518	Data Processing, Hosting, and Related Services	254	6	4,038	450,737,865	111,624
Middle	551	Management of Companies and Enterprises	541	7	21,582	2,200,207,472	101,946
Middle	425	Wholesale Electronic Markets and Agents and Brokers	1,290	8	4,814	474,010,748	98,465
Middle	541	Professional, Scientific, and Technical Services	7,233	9	66,166	5,392,075,349	81,493
Middle	212	Mining, except oil and gas	54	10	1248	\$101,045,649	80,966

As in the East, general merchandise stores and government did not make the top ten ranking of total payroll. Industries with the highest annual average wages included two financial services industries and the performing arts/spectator sports and related industries, which includes professional sports teams. Other top paying industries were petroleum and coal products manufacturing and data processing services, as well as pipeline transportation and mining.

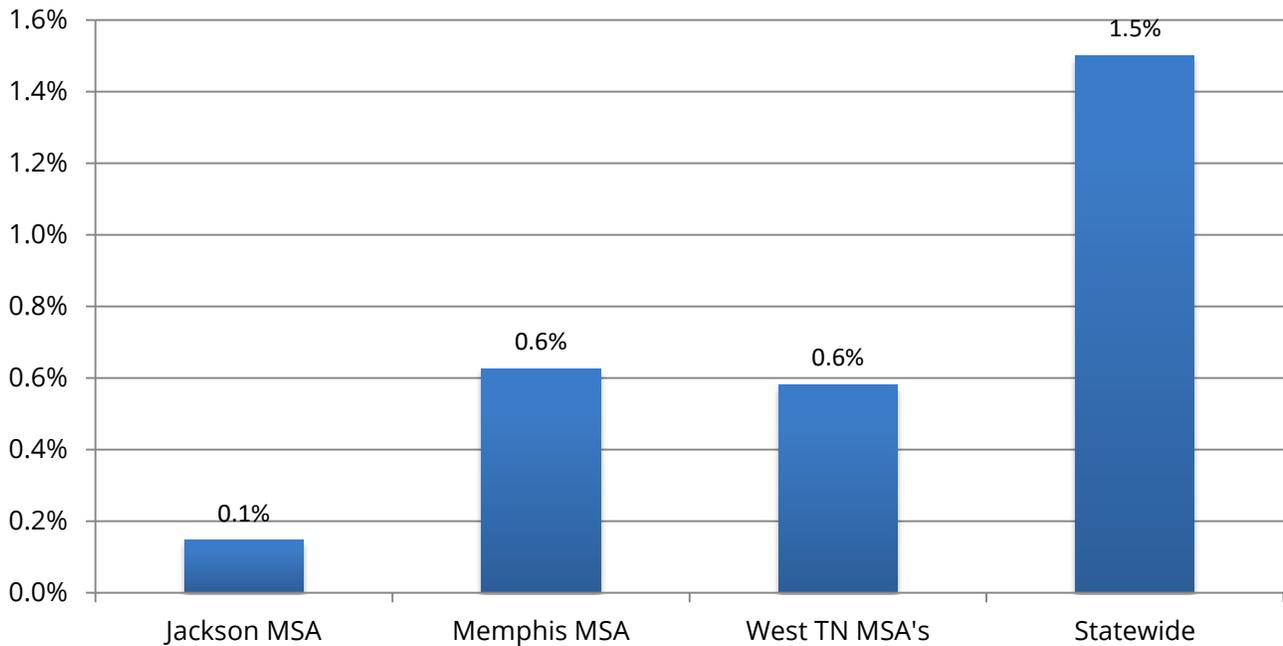
Table 25: Middle Region Annual Average Unemployment Rates, 2016 to 2017

Area	2017 Annual Averages				2016 Annual Averages			
	Labor Force	Employment	Unemployment Number	Unemployment Percent	Labor Force	Employment	Unemployment Number	Unemployment Percent
UNITED STATES	160,320,000	153,337,000	6,982,000	4.4%	159,187,000	151,436,000	7,751,000	4.9%
TENNESSEE	3,198,800	3,080,200	118,600	3.7%	3,134,700	2,987,100	147,700	4.7%
Metropolitan Statistical Areas (MSAs)								
Clarksville, TN-KY MSA	111,900	106,800	5,200	4.6%	110,400	104,400	5,900	5.4%
Montgomery County	80,990	77,690	3,300	4.1%	79,970	75,920	4,050	5.1%
Kentucky Portion	30,910	29,110	1,900	6.1%	30,430	28,480	1,850	6.1%
Nashville-Murfreesboro, TN MSA	1,011,400	982,200	29,200	2.9%	974,500	938,100	36,400	3.7%
Cannon County	6,240	6,010	220	3.5%	6,020	5,740	280	4.6%
Cheatham County	21,000	20,370	640	3.0%	20,260	19,460	800	4.0%
Davidson County	388,110	377,450	10,660	2.7%	373,950	360,530	13,420	3.6%
Dickson County	25,670	24,830	850	3.3%	24,790	23,710	1,080	4.3%
Hickman County	10,790	10,420	370	3.4%	10,440	9,960	480	4.6%
Macon County	10,630	10,260	360	3.4%	10,240	9,790	450	4.3%
Mauzy County	45,780	44,310	1,470	3.2%	44,100	42,320	1,780	4.0%
Robertson County	36,120	34,900	1,220	3.4%	34,760	33,320	1,440	4.1%
Rutherford County	169,960	165,060	4,900	2.9%	163,650	157,630	6,020	3.7%
Smith County	9,000	8,680	320	3.5%	8,680	8,290	400	4.6%
Sumner County	95,770	92,940	2,830	3.0%	92,350	88,770	3,570	3.9%
Trousdale County	3,970	3,830	140	3.5%	3,850	3,660	190	4.8%
Williamson County	118,000	114,850	3,150	2.7%	113,580	109,710	3,870	3.4%
Wilson County	70,370	68,320	2,060	2.9%	67,840	65,240	2,600	3.8%
Micropolitan Statistical Areas (MCSAs)								
Cookeville	48,260	46,344	1,916	4.0%	46,973	44,541	2,432	5.2%
Jackson Co.	4,590	4,340	240	5.3%	4,490	4,180	310	7.0%
Overton Co.	9,590	9,200	400	4.1%	9,220	8,730	490	5.3%
Putnam Co.	34,080	32,810	1,280	3.7%	33,260	31,640	1,630	4.9%
Lawrenceburg (Lawrence Co.)	17,770	16,990	780	4.4%	17,790	16,770	1,020	5.7%
Lewisburg (Marshall Co.)	15,540	15,020	520	3.3%	15,080	14,380	690	4.6%
Shelbyville (Bedford Co.)	20,540	19,740	800	3.9%	19,830	18,840	980	5.0%
Tullahoma-Manchester	48,426	46,652	1,774	3.7%	47,680	45,444	2,236	4.7%
Coffee Co.	25,040	24,120	910	3.6%	24,450	23,310	1,150	4.7%
Franklin Co.	19,910	19,150	750	3.8%	19,840	18,880	960	4.8%
Moore Co.	3,480	3,380	110	3.1%	3,390	3,260	130	3.8%

Source: TN Department of Labor and Workforce Development, WIR²ED Division, Local Area Unemployment Statistics

West Region

West TN MSA Job Growth 2016-2017



Source: TN Department of Labor & Workforce Development, Current Employment Statistics

Figure 16

West Region

The two MSAs in the West Region, Jackson and Memphis combined, grew at about half the average rate of growth in employment statewide (Figure 16). The Jackson MSA only grew by 0.1 percent in 2016-2017. The West Region had the highest average unemployment rate in the state (Table 12), 4.4 percent. Of the ten counties in the West Region in MSAs or micropolitan areas, none had unemployment rates lower than the state rate in 2017, although all had reduced rates from 2016. The five counties which had the greatest reductions in unemployment rates were Obion, Henry, Dyer, Union City (all in micropolitan areas) and Tipton (in Memphis TN-MS-AR MSA), all lowering their rates by more 1.3 percent or more.

This region had the highest rate of youth unemployment in 2016, and zero rate of population growth, with five counties losing population; however, the average educational attainment was higher than for the East Region. The West Region had the highest percentage of adults 25 years of age and older, 9.5 percent, who had completed 9th to 12th grade but who had not received a high school diploma. The percentage of the unemployed with a disability was lower than the average for the state. The top ten detailed industries with the most employment in the West Region are listed in table 20.

Seven of the top ten are ranked similarly to the state; however, transportation equipment manufacturing and general merchandise stores are not in the West's top ten list in terms of employment. However, the couriers and messengers and merchant wholesalers of durable goods are sixth and ninth in the West's ranking, supporting its prominence as a distribution center. Reinforcing this, with regard to total payroll, couriers and messengers are ranked second, merchant wholesalers of durable goods are ranked seventh, and merchants and wholesalers of nondurable goods are ranked tenth.

Table 26: Top 10 West Region Subsector Industries by Employment

Region	Industry	NAICS Description	# of Establ	West Region Ranking	Avg Monthly Emp	Total Wages \$	Avg Ann Wage \$
WEST	561	Administrative and Support Services	1,687	1	59,697	2,073,036,365	34,726
WEST	611	Educational Services	409	2	56,397	2,416,658,268	42,851
WEST	722	Food Services and Drinking Places	2,467	3	52,918	865,081,648	16,348
WEST	622	Hospitals	61	4	39,632	2,360,845,172	59,569
WEST	621	Ambulatory Health Care Services	2,269	5	35,366	2,224,870,418	62,910
WEST	492	Couriers and Messengers	103	6	28,052	2,386,694,798	85,081
WEST	541	Professional, Scientific, and Technical Services	2,800	7	24,679	1,471,480,028	59,625
WEST	921	Executive, Legislative, and Other General Government Support	159	8	24,534	1,159,316,438	47,253
WEST	423	Merchant Wholesalers, Durable Goods	1,279	9	18,692	1,215,114,911	65,007
WEST	238	Specialty Trade Contractors	1,460	10	17,467	944,840,386	54,093

Table 27: Top 10 West Region Subsector Industries by Total Wages

Region	Industry	NAICS Description	# of Establ	West Region Ranking	Avg Monthly Emp	Total Wages \$	Avg Ann Wage \$
WEST	611	Educational Services	409	1	56,397	2,416,658,268	42,851
WEST	492	Couriers and Messengers	103	2	28,052	2,386,694,798	85,081
WEST	622	Hospitals	61	3	39,632	2,360,845,172	59,569
WEST	621	Ambulatory Health Care Services	2,269	4	35,366	2,224,870,418	62,910
WEST	561	Administrative and Support Services	1,687	5	59,697	2,073,036,365	34,726
WEST	541	Professional, Scientific, and Technical Services	2,800	6	24,679	1,471,480,028	59,625
WEST	423	Merchant Wholesalers, Durable Goods	1,279	7	18,692	1,215,114,911	65,007
WEST	921	Executive, Legislative, and Other General Government Support	159	8	24,534	1,159,316,438	47,253
WEST	238	Specialty Trade Contractors	1,460	9	17,467	944,840,386	54,093
WEST	424	Merchant Wholesalers, Nondurable Goods	547	10	13,733	920,538,488	67,031

Table 28: Top 10 West Region Subsector Industries by Avg Annual Wage

Region	Industry	NAICS Description	# of Establ	West Region Ranking	Avg Monthly Emp	Total Wages \$	Avg Ann Wage \$
WEST	523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	287	1	3,035	636,805,002	209,820
WEST	711	Performing Arts, Spectator Sports, and Related Industries	91	2	1,525	225,522,942	147,884
WEST	551	Management of Companies and Enterprises	220	3	7,001	908,554,495	129,775
WEST	322	Paper Manufacturing	41	4	5,917	665,532,558	112,478
WEST	339	Miscellaneous Manufacturing	116	5	7,316	667,951,504	91,300
WEST	324	Petroleum and Coal Products Manufacturing	8	6	950	84,738,541	89,198
WEST	525	Funds, Trusts, and Other Financial Vehicles	18	7	52	4,562,536	87,741
WEST	492	Couriers and Messengers	103	8	28,052	2,386,694,798	85,081
WEST	518	Data Processing, Hosting, and Related Services	52	9	215	17,296,823	80,450
WEST	926	Administration of Economic Programs	72	10	1,784	143,448,690	80,408

In terms of industry annual average wages, two industries in the finance sector were ranked number one and 10 in average annual wages, with the securities, commodities and other financial investments industry having an average annual wage of \$209,820. Other high-paying industries included the performing arts and spectator sports industries as well as management of companies and enterprises. Unique to the region is that three manufacturing industries – paper, miscellaneous, and petroleum and coal products- are included in industries having the greatest annual average wages. Couriers and messengers is also included. Data processing and hosting services are present here as they are in the other two regions.

Table 29: West Region Annual Average Unemployment Rates, 2016 to 2017

Area	2017 Annual Averages				2016 Annual Averages			
	Labor Force	Employment	Unemployment Number	Unemployment Percent	Labor Force	Employment	Unemployment Number	Unemployment Percent
UNITED STATES	160,320,000	153,337,000	6,982,000	4.4%	159,187,000	151,436,000	7,751,000	4.9%
TENNESSEE	3,198,800	3,080,200	118,600	3.7%	3,134,700	2,987,100	147,700	4.7%
Metropolitan Statistical Areas (MSAs)								
Jackson, TN MSA	63,700	61,200	2,500	4.0%	63,100	60,000	3,100	4.9%
Chester County	8,530	8,190	340	4.0%	8,450	8,030	420	5.0%
Crockett County	6,960	6,670	290	4.1%	6,890	6,530	360	5.2%
Madison County	48,260	46,360	1,890	3.9%	47,800	45,480	2,320	4.8%
Memphis, TN-MS-AR MSA	630,100	603,100	27,000	4.3%	623,400	591,000	32,400	5.2%
Fayette County	18,520	17,790	740	4.0%	18,280	17,370	920	5.0%
Shelby County	439,420	420,440	18,980	4.3%	434,260	411,130	23,140	5.3%
Tipton County	27,770	26,550	1,220	4.4%	27,510	25,950	1,560	5.7%
Arkansas Portion	21,807	20,871	936	4.3%	21,649	20,676	973	4.5%
Mississippi Portion	122,454	117,323	5,131	4.2%	121,805	116,001	5,804	4.8%
Micropolitan Statistical Areas (MCSAs)								
Dyersburg (Dyer Co.)	16,130	15,350	780	4.8%	16,370	15,350	1,010	6.2%
Martin (Weakley Co.)	15,900	15,130	770	4.9%	15,870	14,940	930	5.8%
Paris (Henry Co.)	14,040	13,400	640	4.5%	13,920	13,110	820	5.9%
Union City, TN-KY	14,358	13,535	823	5.7%	14,656	13,629	1,027	7.0%
Obion Co.	12,270	11,600	670	5.5%	12,570	11,690	880	7.0%
Kentucky portion (Fulton Co.)	2,088	1,935	153	7.3%	2,086	1,939	147	7.0%

Source: TN Department of Labor and Workforce Development, WIR²ED Division, Local Area Unemployment Statistics

Workforce Challenges and Strategies 2018

The Workforce Innovation and Opportunity Act (WIOA) was in full implementation stage after July 1, 2017. The integration of workforce services with collaborative partners and shared goals continues to evolve. An additional challenge in August 2018 was the restructuring of the local workforce development areas from 13 to 9, with full implementation in the fall and winter of 2018. To facilitate this implementation, data on the potential population to serve was needed for each of the nine areas

Challenges: Substantial Barriers to Employment

WIOA included a renewed focus on those with substantial barriers to employment (SBEs), with categories specifically defined in the WIOA guidelines.

WIOA Individuals with Barriers to Employment, 2018 Categories

- a. Displaced homemakers
- b. Low-income individuals
- c. Native Americans
- d. Individuals with disabilities, including recipients of Social Security
- e. Older individuals
- f. Justice- involved individuals
- g. People experiencing homelessness
- h. Youth who are in or have aged out of the foster care system
- i. Individuals who:
 1. Are English language learners
 2. Have low levels of literacy
 3. Face substantial cultural barriers
- j. Eligible migrant and seasonable farmworkers
- k. Individuals within two years of exhausting lifetime Temporary Assistance for Needy Families (TANF) eligibility
- l. Single parents, including pregnant women
- m. Those unemployed for 27 or more consecutive weeks
- n. Such other groups as determined by Governor Haslam

Collection of data on current populations in these categories is ongoing for Workforce Services and WIR²ED. Estimates of the number of these individuals by the revised Local Workforce Development Areas (LWDAs) in Tennessee were produced from a number of sources, including the following:

- U.S. Census Bureau
- U.S. Department of Labor, Bureau of Labor Statistics (BLS)
- Tennessee Department of Correction
- Tennessee Department of Children's Services
- Tennessee Department of Education
- Tennessee Department of Human Services
- Tennessee Department of Mental Health and Substance Abuse Services

Several of these departments have different service areas than the LWDA's, so population-based estimates were created by the Department of Labor and Workforce Development, WIR2ED Division. Available in this report are data by LWDA for the following categories:

- Low income individuals
- Native Americans
- Individuals with disabilities
- Older individuals
- Justice-involved individuals, including those on probation or parole and in mental health and recovery courts
- Youth aged out of foster care
- Individuals with limited English-speaking ability
- Single parents
- In-School youth experiencing homelessness
- Individuals within 18 months of exhausting lifetime TANF eligibility

These estimates are displayed in Table 30-32. Additional diversion programs and processes are being developed, including the Davidson County District Attorney's statement on September 5, 2018 that he would stop immediately prosecuting many driver's license violations, which is expected to divert 12,000 charges out of Nashville courtrooms during the next year^v. The largest groups with substantial barriers to employment include older individuals, those below the poverty threshold, and those with disabilities. As integrated databases are developed, determining individuals who have two or more barriers would assist in prioritizing services.

Table 30: Substantial Barriers to Employment

New LWDA Area	Number Of American Indians or Alaskan Natives alone	Population Ages 14-17	Population Ages 18-24	Population Ages 55+	Number Below Poverty	Number With Disability	Number of Single Parent Families
East							
East Tennessee	2,554	60,418	115,555	370,968	117,665	108,067	36,565
Northeast Tennessee	927	24,111	45,554	169,237	53,514	56,240	16,332
Southeast Tennessee	940	31,855	59,040	193,051	59,124	57,298	20,889
Middle							
Northern Middle Tennessee	4,217	100,176	184,639	431,975	136,440	123,061	64,777
Southern Middle Tennessee	1,021	23,669	35,753	130,826	38,318	41,303	15,256
Upper Cumberland	578	17,232	31,558	114,366	38,518	34,757	11,213
West							
Greater Memphis	1,741	59,408	105,887	260,918	109,880	77,019	52,358
Northwest Tennessee	553	13,076	23,496	79,908	26,210	25,172	9,370
Southwest Tennessee	254	13,041	24,262	76,476	27,103	22,656	9,498
Total	12,785	342,986	625,744	1,827,725	606,772	545,573	236,258

Source: U.S. Census, American Community Survey, 2016.

Table 31: Substantial Barriers to Employment (Cont.)

New ECD Regions	Probationers and Parolees	Mental Health Court Statistics (FY 2018)	Limited English Speaking	*Foster Care Services - Youth Aged Out	Clients In Recovery Courts	In School Youth Experiencing Homelessness in 2017	TANF 18 Months From Ending Eligibility Total
East							
East Tennessee	10,692		5,431	202	288	1983	349
Northeast Tennessee	4,620	13	754	62	70	1350	162
Southeast Tennessee	5,472		3,156	80	51	961	235
Middle							
Northern Middle Tennessee	17,697	38	16,498	210	525	4938	506
Southern Middle Tennessee	4,198	28	1,789	90	81	307	134
Upper Cumberland	3,793		1,454	91	181	1056	86
West							
Greater Memphis	10,509	34	6,987	133	398	891	1011
Northwest Tennessee	2,224		577	41	101	305	117
Southwest Tennessee	2,243		470	26	33	542	151
Total	61,448	113	37,116	935	1728	12333	2751

* Counties of commitment, not residence.

Sources: Probationers and parolees: Adam Dawson, Community Supervision Division, TN Department of Correction. Mental Health Court and Recovery Court Statistics: Liz Ledbetter, Recovery Court Administrator, TN Department of Mental Health and Substance Abuse Services. Limited English Speaking: U.S. Census Bureau, American Community Survey, 2016. Foster Care Services: Dave Aguzzi, Office of Independent Living, TN Department of Children's Services, In School Youth Experiencing Homelessness: Hebeh Hindieh, Data Management Division, TN Department of Education TANF 18 Months from Ending Eligibility: Lakecia Peterson, Division of Family Assistance and Child Support, TN Department of Human Services.

Table 32 Those Unemployed for 27 or More Consecutive Weeks

Group Identified	Number of Workers Reported
All Races	21,325
White	16,400
Black	4,200
Hispanic	1,100
Age 16-19	1,433
Age 20+	20,275
Male, 16+	11,100
Female, 16+	10,250

Endnotes

^vTamburin, A. (2018, September 5). DA to keep 12,000 cases out of court. Tennessean, pp. 1A-14A

Workforce Strategies- Apprenticeship and Employer- Approved Certifications

Key to reducing unemployment among individuals with multiple barriers to entering and being retained in the workforce is integrating work-based learning (especially if compensated) and employment. Two important strategies are creating and fostering apprenticeships and supporting employer-recognized credentials such as certification. Other important strategies include assessing and meeting the basic needs of individuals who qualify for training and creating career paths to jobs in targeted industries.

Data on apprenticeship completers for 2017 in Tennessee were obtained from the U.S. Department of Labor, Office of Apprenticeship. Tables 32-34 include the names of apprenticeship sponsors with completers in 2017 in the East, Middle, and West Regions of Tennessee, who are also identified by county. Table 35 lists the apprenticeship occupations which had completers in Fiscal Year 2017.

Compared to 2016, this year had 108 additional apprenticeship completers, for a total of 764. Forty-six unique occupations had completers in each year, although some occupations differed. Occupations in 2017 which did not have completers in 2016 were the following:

- Automobile mechanic
- Bricklayer
- Cabinetmaker
- Career development technician
- Cement mason
- Composite plastic fabricator
- Electric meter repairer
- Purchasing agent
- Small engine mechanic
- Welder, combination

As in the previous year, the largest number of sponsors (54 percent) were in the East Region, which also had 63 percent of the completers. The bulk of the apprenticeships were in construction, manufacturing, and mechanical fields. The occupations with the most apprenticeship completers were electrician and chemical operator III.

There should be ample opportunity to expand apprenticeships to new occupations and industries as the service sector continues its strong growth in Tennessee.

The Tennessee Department of Education, college, Career and Technical Education Division, has been identifying employer-approved certifications related to their programs of study. A complete list of those identified so far can be found in their recent publication. Student Industry Certifications Overview ([cte_certs_guidance.pdf](#)). Middle skill occupations with certifications identified by the Department of Education are marked in Table 9 with a C.

Table 33: Registered Apprenticeship Sponsors with Completers 2017 East

Apprenticeship Sponsors	County	Region	Completers
Acorn Electrical Specialists, Inc	Sullivan County	East	1
AO Smith	Washington County	East	3
Arconic	Blount County	East	15
Chattanooga Electrical JATC	Hamilton County	East	57
Chattanooga Ironworkers JAC	Hamilton County	East	5
Consolidated Nuclear Security, LLC	Anderson County	East	7
Dienamic Tooling System INC	Roane County	East	2
Domtar Paper Company	Hawkins County	East	5
Eastman Chemical Company - Coal Gas Division	Sullivan County	East	13
Eastman Chemical Company - Tennessee Corporation	Sullivan County	East	219
Electrician Training Academy Knoxville	Knox County	East	18
FLSmith Inc. Apprenticeship Program	Washington County	East	2
Funderburk Electrical Services	Knox County	East	2
Gestamp Chattanooga, LLC	Hamilton County	East	2
Knoxville Asbestos Workers JATC	Knox County	East	5
Knoxville Ironworkers JAC	Knox County	East	6
Knoxville Laborers JATC	Knox County	East	7
Knoxville Plumbing Heating Air Conditioning Cont.	Knox County	East	2
Massey Electric #1	Blount County	East	5
Massey Electric, INC.# 2	Sullivan County	East	4
Mountain Electric Cooperative	Johnson County	East	1
Nuclear Fuel Services	Unicoi County	East	3
Oak Ridge Elect JATC	Anderson County	East	9
Primester	Hawkins County	East	1
Resource Valley	Knox County	East	2
Sanford Newell Rubbermaid Company.	Loudon County	East	1
Southeast Container	Bradley County	East	1
Tennessee Carpenters Regional Council J.A.T.C.	Hamilton County	East	44
Thomas & Betts Corp.	McMinn County	East	1
Tri-Cities Electrical JATC	Sullivan County	East	8
TVA	Knox County	East	14
UA Local 43 Plumbers Steamfitters JATC	Hamilton County	East	16
Grand Total For East	Region	East	481

Table 34: Registered Apprenticeship Sponsors with Completers 2017 Middle

Apprenticeship Sponsors	County	Region	Completers
ABEC Electrix Company, INC	Davidson County	Middle	7
Cumberland Electric Membership Corporation	Cheatham County	Middle	4
Elevator Constructors Local 93	Davidson County	Middle	7
Heat & Frost Insulators Local# 86 J.A.T.C	Davidson County	Middle	5
John Bouchard & Sons Company	Davidson County	Middle	2
Nashville Electric Service	Davidson County	Middle	20
Nashville Electrical JATC	Davidson County	Middle	29
Nashville Ironworkers	Davidson County	Middle	13
Nashville Masonry J.A.T.C.	Davidson County	Middle	3
Nashville Plumbers and Pipefitters	Davidson County	Middle	1
Nashville Sheetmetal JATC	Cheatham County	Middle	13
North American Stamping Group	Sumner County	Middle	1
Southwest Tennessee EMC	Wilson County	Middle	7
Travis Electric Company	Cheatham County	Middle	3
Grand Total For Middle	Region	Middle	115

Table 35: Registered Apprenticeship Sponsors with Completers 2017 West

Apprenticeship Sponsors	County	Region	Completers
A-1 Electrical Contractors, INC	Shelby County	West	7
FCI	Shelby County	West	12
International Union of Elevator Constructors Local	Shelby County	West	2
Memphis Asbestos JAC	Shelby County	West	6
Memphis Electrical JATC	Shelby County	West	22
Memphis Light, Gas, and Water	Shelby County	West	18
Memphis Plumbers JAC	Shelby County	West	4
Memphis Sheet Metal Workers JAC	Shelby County	West	2
Memphis Steamfitters JAC	Shelby County	West	21
MID South Independent Electrical Contractors	Shelby County	West	16
Northwest Corrections	Obion County	West	52
West Tennessee State Pentitentiary	Lauderdale County	West	3
West Tennessee Associated Builders & Contractor	Shelby County	West	3
Grand Total For West	Region	West	168
Total Number of Completers	All Regions	State	764

Table 36: Apprentice Completers 2017 by Job Title and Region

Occupational Job Titles Of Training Completers	East Tennessee	Middle Tennessee	West Tennessee
Automobile Mechanic			5
Bricklayer		3	
Cabinetmaker			3
Career Development Technician			1
Carpenter	24		7
Carpenter, Maintenance		1	1
Cement Mason			5
Chemical Laboratory Technician	6		
Chemical Operator III	168		
Composite Plastic Fabricator	5	5	6
Construction Craft Laborer	7		
Electric Meter Repairer		6	2
Electrician	128	42	51
Electrician, Powerhouse			1
Electrician, Substation			2
Electromechanical Technician	20		
Electronics Tester			1
Elevator Constructor		7	2
Heating & Air-Conditioner Installer/Service	1		5
Landscape Technician			1
Line Erector	2		
Line Installer-Repairer	1	20	11
Machinist	11		1
Maint Mechanic	14	2	
Maintenance Machinist	1		
Maintenance Repairer, Industrial	11		
Mechanic, Industrial Truck	1		
Metal Fabricator	2		
Millwright	20		
Painter			4
Pipe Fitter	16	2	21
Plumber	1		8
Power-Plant Operator	7		
Purchasing Agent			1
Quality Control Technician			1
Refinery Operator	13		
Refrigeration Mechanic			1
Sheet Metal Worker		13	2
Small Engine Mechanic			13
Structural Steel Worker	11	13	
Teacher Aide I			2
Telecommunications Technician			1
Tool and Die Maker	6	1	
Waste Treatment Operator	3		
Wastewater-Treatment- Plant Operator	2		
Welder, Combination			9
Total by Division FY 2017	481	115	168
Total for State FY 2017	764		

Conclusion

The Tennessee economy continued its growth in 2017. Total employment topped 3 million and more than 44,000 new jobs were created. The unemployment rate was at its lowest level in at least 20 years. All metropolitan areas increased in employment except for Cleveland. The ratio of less than one unemployed person with a resume for each job posted on the jobs4tn.gov website continues to indicate a shortage of applicants for available jobs. And regional disparities in social capital, as well as the lack of understanding of best methods to increase labor market participation, provide important opportunities for strategic workforce development.

What steps can the workforce system take to become more strategic and effective? First steps have been taken by building a more integrated workforce system under the Workforce Innovation and Opportunity Act. The American Job Centers include educational, vocational rehabilitation, labor and workforce, and human services resources, enhancing service delivery to Tennesseans. Submission of the combined state plan including common performance measures with the Tennessee Departments of Labor and Workforce Development, Human Services, Education, and Economic and Community Development is building a more collaborative framework. The Workforce Information Database, VOS, Tennessee Longitudinal Data System and the Workforce Data Quality Initiative will provide data for research on best practices in workforce development and related educational and human services programs and initiatives. Future annual economic reports will analyze Tennessee's economic progress and hopefully reductions in the percentages of those facing significant barriers to employment in Tennessee's nine regions.



Projections Managing Partnership

SEPARATIONS METHODOLOGY: FREQUENTLY ASKED QUESTIONS

WHY ARE EMPLOYMENT PROJECTIONS IMPORTANT, AND HOW SHOULD THEY BE USED?

Projections are used to give people an idea of what is expected to happen in the future in regards to occupations. Projections help us determine:

- *What areas of the economy are expected to see growth, decline and what areas of the economy are growing the fastest.*
- *What occupations will have more openings than others, allowing stakeholders to better prepare and train the workforce.*

But, projections are just that: projections. No matter the methodology, there will never be a methodology to perfectly predict the exact number of openings in the workforce. Projections are to be used for:

- *Relative comparisons for occupations.*
- *To help inform where training for the future workforce should be focused.*
- *They are **not** intended to be used as specific targets, such as the exact number of people who should go through a training program.*

The Separations methodology is based upon national data and is meant to be used by states as a guide to state-level projections. At the state, regional and local levels, projections will vary by geography and time. Just as the workforce and economy has evolved nationally, it has evolved differently for each state, which will impact how states use projections to identify in-demand occupations and meet the state's training needs.

HOW DOES THE NEW SEPARATIONS METHODOLOGY IMPACT THE ABILITY TO COMPARE WITH PREVIOUS NUMBERS OR LOOK AT TRENDS?

The new methodology incorporates past data, patterns and trends to generate projections. The new methodology is consistent with historical patterns, although this data isn't published. The new Separations numbers will vary from the previously published projections using the Replacements methodology because of methodological, not conceptual, factors.

- *Projections from the past Replacements methodology should **not** be compared with projections derived from the Separations methodology.*
- *Any past projections become outdated when actual employment catches up with them or new projections are released, and are no longer an accurate representation of the workforce.*
- *If an individual compared the number of openings from 2016-2026 using the Separations methodology with the number of openings from 2014-2024 using the Replacements methodology, the comparison would lack meaning because the methodologies vary so widely.*
- *To compare historical trends to current projections, a practitioner should use actual employment figures from the time period. When new projections are released, old projections become obsolete.*



SEPARATIONS METHODOLOGY: FREQUENTLY ASKED QUESTIONS

WILL THE SEPARATIONS METHODOLOGY IMPACT INDUSTRY PROJECTIONS?

The Separations methodology will not impact industry projections. The methodology for producing industry projections is unchanged and independent of the Separations methodology at both the state and national level.

HOW CAN USERS ACCESS THE NEW SEPARATIONS METHODOLOGY?

Users can access the new Separations methodology through the Bureau of Labor Statistics' website: www.bls.gov/emp/ep_separations_methods.htm.

DOES THE NEW METHODOLOGY TAKE INTO ACCOUNT THE GIG ECONOMY OR SELF-EMPLOYED WORKERS?

Individuals who are self-employed as their primary occupation would be captured through the occupation in which they specialize.

For example, a self-employed construction worker would be classified as a job in the construction industry. For many individuals who work 'gigs,' like driving for a ride-share service, this isn't their primary occupation. Therefore, this isn't taken into account for the Separations methodology.

WHERE CAN I GET MORE TECHNICAL INFORMATION ON THE SEPARATIONS METHODOLOGY?

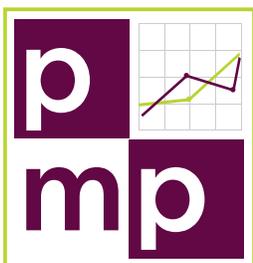
Additional information and frequently asked questions can be found at: https://www.bls.gov/emp/ep_separations_faqs.htm.

WHAT IS THE TIMELINE OF THE NEW SEPARATIONS METHODOLOGY?

Oct. 24, 2017: The Separations methodology was implemented and 2016 - 2026 national projections were released.

September 2017: States began preparing short-term projections using the Separations methodology.
February 2018: States finalize results.

January 2018: States begin preparing long-term projections using the Separations methodology.
June 2018: States finalize occupation results.



Projections Managing Partnership

Imiontheweb.org/pmp/separations Projections Managing Partnership